COMPAQ

Hardware Guide

Compaq Evo Notebook N620c Series

Document Part Number: 279360-002

January 2003

This guide provides instructions for setting up the notebook and connecting external devices. In addition, the guide describes the hardware features on the notebook and provides instructions for using them.

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Hardware Guide
Second Edition January 2003
First Edition July 2002
Reference Number: N620c
Document Part Number: 279360-002

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1

Notebook Features

Display Components

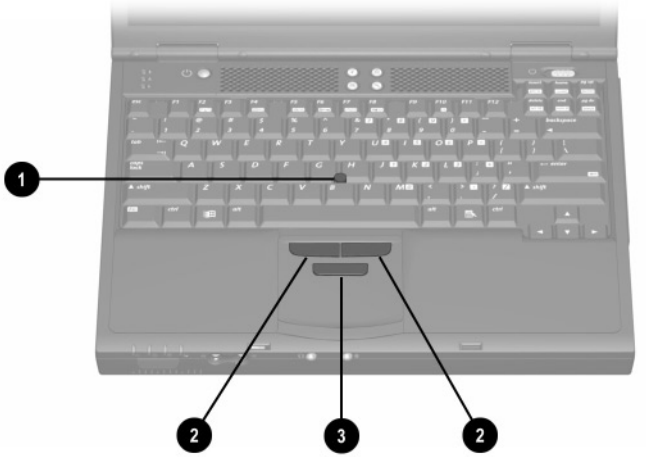
Identifying display components

Display Component Descriptions

❶	Display release latch	Opens the notebook.
❷	MultiPort	Supports an optional USB-enabled wireless device such as a Bluetooth or 802.11b wireless LAN.

Pointing Device Components

Pointing Stick Model



Identifying pointing stick components

Pointing Stick Component Descriptions

❶	EasyPoint IV 3D Pointing Stick	Moves the pointer and selects or activates items on the screen.
❷	Left and right pointing stick buttons	Function like the left and right buttons on an external mouse.
❸	Scroll pointing stick button	Functions like the scroll button on an external mouse.

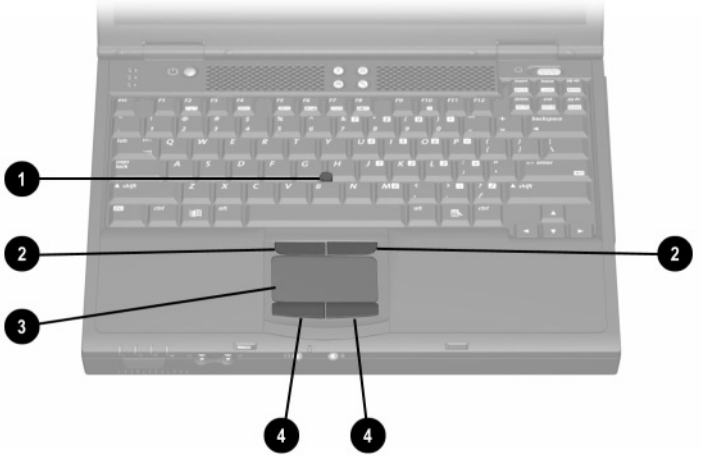
TouchPad Model

Identifying TouchPad components

TouchPad Component Descriptions

❶	TouchPad	Moves the pointer and selects or activates items on the screen. Can be set to perform other mouse functions, such as scrolling, selecting, and double-clicking.
❷	Left and right TouchPad buttons	Function like the left and right buttons on an external mouse.

Dual Pointing Device Model



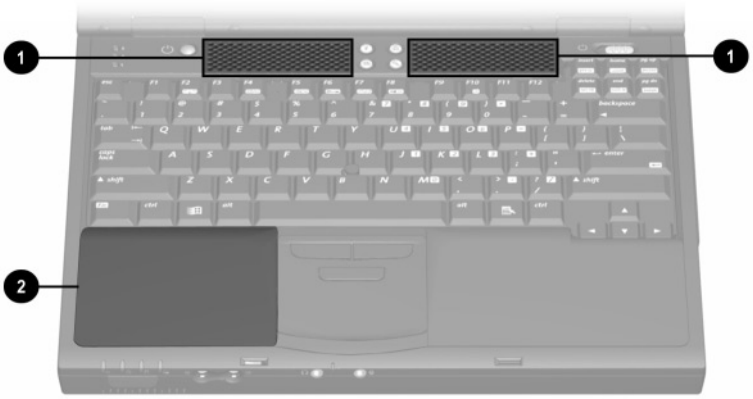
Identifying dual pointing device components

Dual Pointing Device Component Descriptions

❶	Pointing stick	Moves the pointer and selects or activates items on the screen.
❷	Left and right pointing stick buttons	Function like the left and right mouse buttons on an external mouse.
❸	TouchPad	Moves the pointer and selects or activates items on the screen. Can be set to perform other mouse functions, such as scrolling, selecting, and double-clicking.
❹	Left and right TouchPad buttons	Function like the left and right buttons on an external mouse.

Top Components

Speakers and Memory Compartment

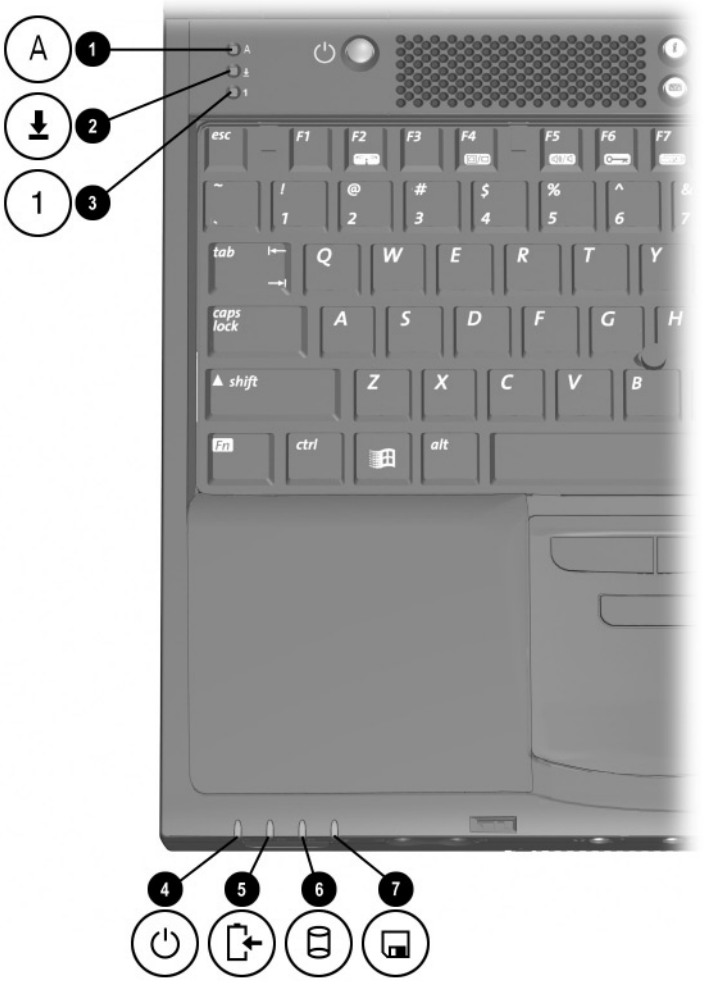


Identifying the speakers and memory compartment

Speakers and Memory Compartment Descriptions

❶	Stereo speakers (2)	Produce stereo sound.
❷	Memory expansion compartment	Contains 2 memory expansion slots for optional memory expansion boards.

Lights

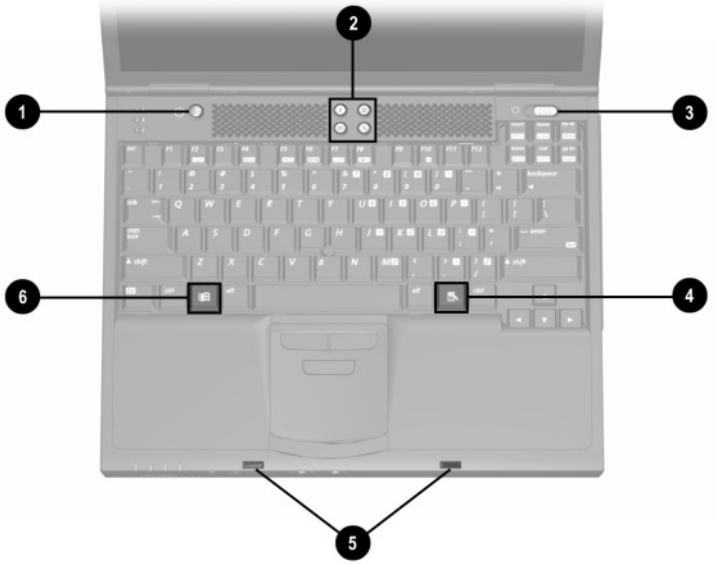


Identifying lights on the edges of the keyboard panel

Lights on the Edges of the Keyboard Panel

❶	Caps lock light	On: Caps lock is on.
❷	Scroll lock light	On: Scroll lock is on.
❸	Num lock light	On: Num lock is on or the embedded numeric keypad is enabled.
❹	Power/Standby light	On: Power is turned on. Blinking: Notebook is in Standby. ✎ The power/standby light also blinks when a battery pack that is the only available power source, reaches a critical low-battery condition while Hibernation is disabled.
❺	Battery light	On: A battery pack is charging. Blinking: A battery pack that is the only available power source, has reached a low-battery condition.
❻	IDE (Integrated Drive Electronics) drive light	On: One of the following drives is being accessed: ■ Hard drive in the hard drive bay. ■ Optional hard drive, optical drive, Zip drive, or SuperDisk drive in the MultiBay.
❼	Diskette drive light	On: A standard diskette drive in the MultiBay or optional external diskette drive bay is being accessed.

Buttons, Keys and Switches



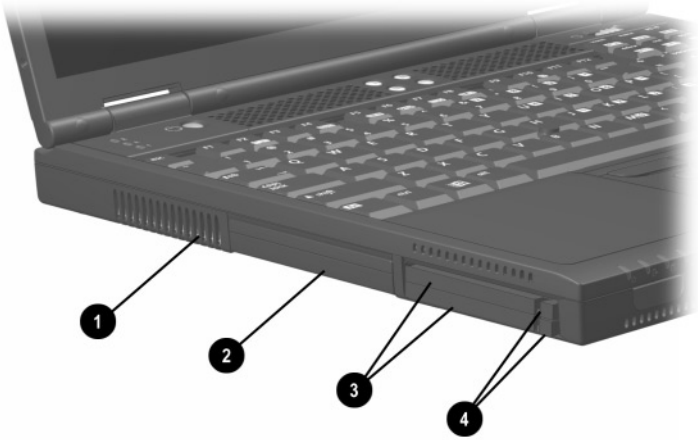
Identifying buttons, keys, and switches on the keyboard panel

Buttons, Keys, and Switches Descriptions

❶	Standby button	Initiates and resumes from Standby.
❷	Easy Access Buttons (4)	Programmable buttons that provide quick access to Internet or network destinations, or to software applications or data files in the system.
❸	Power switch	Turns the notebook on or off or resumes from Hibernation.
❹	Applications key	Displays shortcut menu for items beneath the pointer.
❺	Display release latch recesses (2)	Secure the display when it is closed.
❻	Microsoft logo key	Displays the Windows Start menu.

✎ This table describes default settings. For information about changing power preferences, refer on this CD to the *Software Guide,* "Power" chapter.

Left Side Components

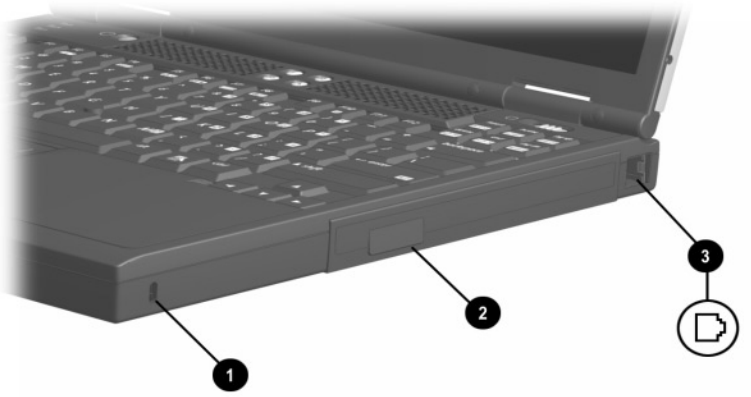


Identifying left side components

Left Side Component Descriptions

❶	Exhaust vent	Allows airflow to cool internal components. △ To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as an adjoining printer, or a soft surface, such as bedding or clothing, to block airflow.
❷	Hard drive bay	Holds the primary hard drive.
❸	PC Card slots (2)	Support optional Type I or Type II 32-bit (CardBus) or 16-bit PC Cards.
❹	PC Card eject buttons (2)	Top button: Ejects an optional PC Card from the top PC Card slot. Bottom button: Ejects an optional PC Card from the bottom PC Card slot.

Right Side Components

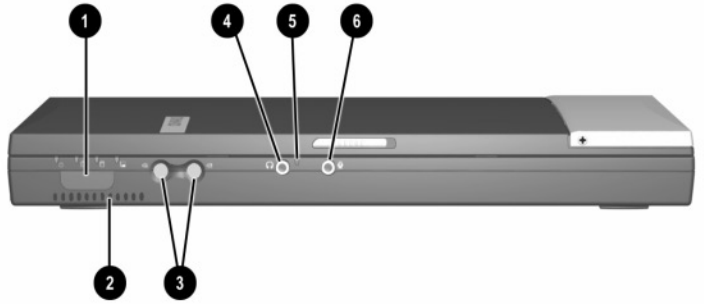


Identifying right side components

Right Side Component Descriptions

❶	Security cable slot	Attaches an optional security cable to the notebook.
❷	MultiBay	Supports an optional MultiBay device, such as a drive or battery pack.
❸	RJ-11 jack	Connects the modem cable.

Front Panel Components

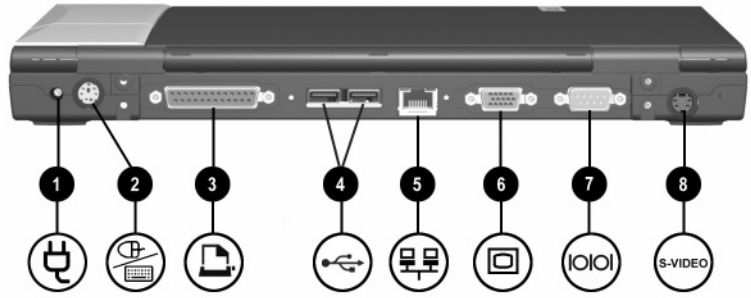


Identifying front panel components

Front Panel Component Descriptions

❶	Infrared port	Links another IrDA-compliant device for wireless communication.
❷	Intake vent	Allows airflow to cool internal components. △ To prevent overheating, do not obstruct vents. Do not allow a hard surface such as an adjoining printer or a soft surface such as bedding or clothing to block airflow.
❸	Volume buttons (2)	Adjust system volume. To mute or restore volume, press both volume buttons at the same time.
❹	Stereo speaker/headphone (line-out) jack	Connects optional, powered stereo speakers, headphones, headset, or television audio.
❺	Microphone	Inputs monaural sound. Can be used whether the notebook is open or closed.
❻	Microphone jack	Connects an optional single-sound channel microphone.

Rear Panel Components



Identifying rear panel components

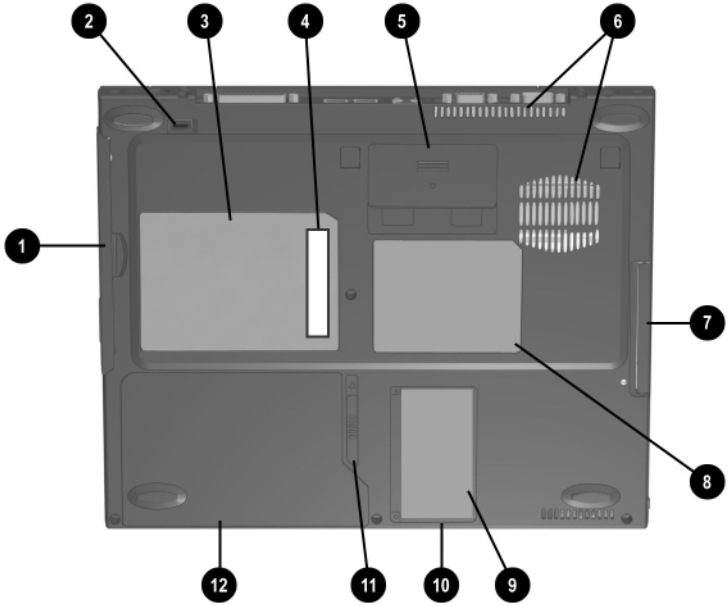
Rear Panel Component Descriptions

❶	DC power connector	Connects an AC adapter or an optional Automobile Power Adapter/Charger, Aircraft Power Adapter, or DC cable.
❷	Keyboard/pointing device (PS/2) connector	Connects an optional PS/2 device such as a keyboard or mouse. ✎ To connect a keyboard and a mouse at the same time, use an optional Y-adapter.
❸	Parallel connector	Connects an optional parallel device, such as an external diskette drive bay or a printer.
❹	USB connectors (2)	Connect optional USB devices.
❺	RJ-45 jack	Connects a network cable.

Rear Panel Component Descriptions *(Continued)*

❻	External monitor connector	Connects an optional external monitor or overhead projector.
❼	Serial connector	Connects an optional serial device.
❽	S-video-out jack	Connects an optional S-video device, such as a television, VCR, camcorder, overhead projector, or video capture card.

Bottom Components



Identifying bottom components

The location of the Certificate of Authenticity label (❾) may vary by model and configuration.

Bottom Component Descriptions

❶	MultiBay recess	Provides a grip area for removing an optional MultiBay device from the MultiBay.
❷	MultiBay release latch	Releases an optional MultiBay device from the MultiBay.
❸	System label	Provides regulatory information about the notebook.

Bottom Component Descriptions *(Continued)*

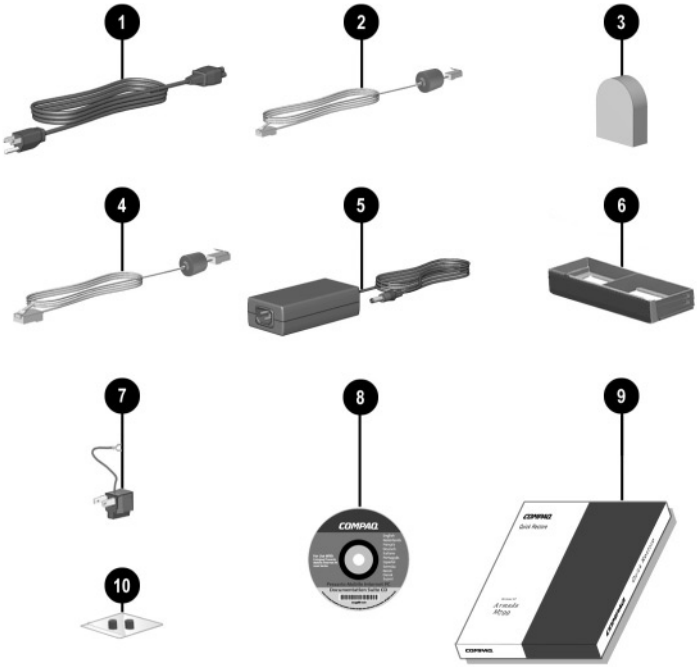
❹	Serial number	Identifies the notebook. ✎ You may need this number if you call Compaq customer support.
❺	Docking connector	Connects the notebook to an optional port replicator. The docking connector has a plastic cover that must be opened before docking.
❻	Intake vents	Provide airflow to cool internal components. △ To prevent overheating, do not obstruct vents. Do not allow a hard surface such as an adjoining printer, or a soft surface such as bedding or clothing to block airflow.
❼	Hard drive bay	Secures the primary hard drive in the hard drive bay.
❽	Modem agency approvals label	Lists the countries in which the modem has been approved for use. ✎ You will need this information to use the modem while traveling internationally.
❾	Certificate of Authenticity label	Contains your Product Key number, which will be needed to update or troubleshoot your operating system.
❿	Mini PCI (Peripheral Component Interconnect) compartment	Contains the mini PCI modem card.
⓫	Battery release latch	Releases the primary battery pack from the battery bay.
⓬	Battery bay	Holds the primary battery pack.

Additional Standard Components

The components included with the notebook vary by geographical region and the notebook hardware configuration ordered.

The following illustration and table identify the standard external components included with most notebook models.

This illustration does not include printed documentation or components such as the hard drive and primary battery pack, which ship inside notebook bays identified in previous sections.



Identifying additional standard components

Additional Standard Component Descriptions

❶	Power cord	Connects the AC adapter to an AC electrical outlet.
❷	Modem cable	Connects the modem to an RJ-11 telephone jack or to a country-specific modem adapter. ✎ The modem cable has a 6-pin RJ-11 connector at each end.
❸	Country-specific modem adapter (included with internal modem models by region as required)	Adapts the modem cable to a non-RJ-11 telephone jack.
❹	Network cable	Connects the notebook to an Ethernet network jack. ✎ The network cable has an 8-pin RJ-45 connector at each end.
❺	AC Adapter	Converts AC power to DC power.
❻	Weight saver	Protects the MultiBay and reduces notebook weight when a MultiBay device is not inserted.
❼	Japan-specific outlet adapter (Japan only)	Connects the AC adapter to a 2-prong electrical outlet.

Additional Standard Component Descriptions *(Continued)*

❽	*Documentation Library* CD	Contains the following guides: ■ *Hardware Guide* ■ *Software Guide* ■ *Modem and Networking* ■ *Modem Command Guidelines* ■ *Maintenance, Shipping and Travel* ■ *Troubleshooting* ■ *Regulatory and Safety Notices* ■ *Safety and Comfort Guide* ■ *Cross-Platform Third-Party Agere Softmodem AT Command Set* ■ *Third-Party Broadcom NetXtreme Ethernet Networking User Guide* ■ *Software Reference Guide (Bluetooth for Windows)* ■ *Software Reference Guide* (*Bluetooth for Windows XP)* ■ *User's Guide (Compaq Wireless LAN MultiPort W200)*
❾	*QuickRestore* kit	Contains the software preinstalled on the notebook.
❿	Bag containing 2 spare pointing stick caps (pointing stick and dual pointing device models only)	Replace worn pointing stick cap.

2

Hardware Setup

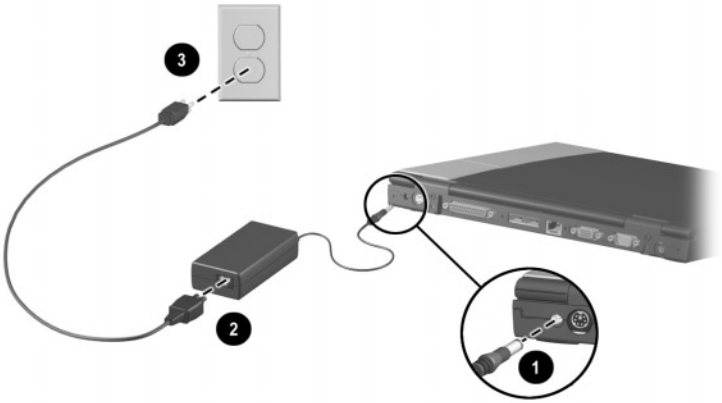
Setting Up the Hardware

CAUTION: Setup must begin by connecting the notebook to AC power. To ensure that the correct drivers load and to prevent file corruption or damage to the components during initial setup:

- Do not set up the notebook while it is docked in an optional Port Replicator.
- Do not remove the battery pack until the notebook has been connected to external AC power.
- Do not run the notebook on battery power. Use external AC power throughout initial setup.

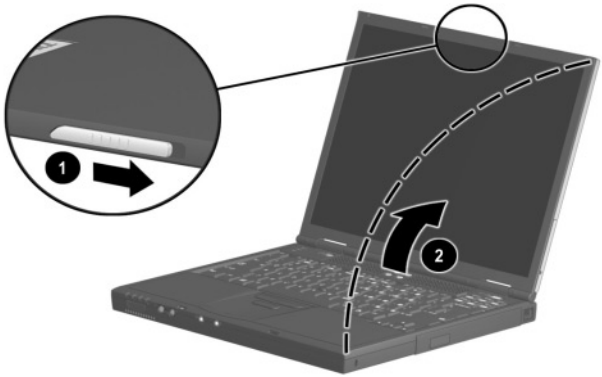
1. Place the notebook on a flat surface near an electrical outlet, then connect the notebook to external AC power.

   Plug the AC adapter cable into the DC power connector ❶. Plug the power cord into the AC adapter ❷ and into an electrical outlet ❸. (Power cords and outlets vary by country.)



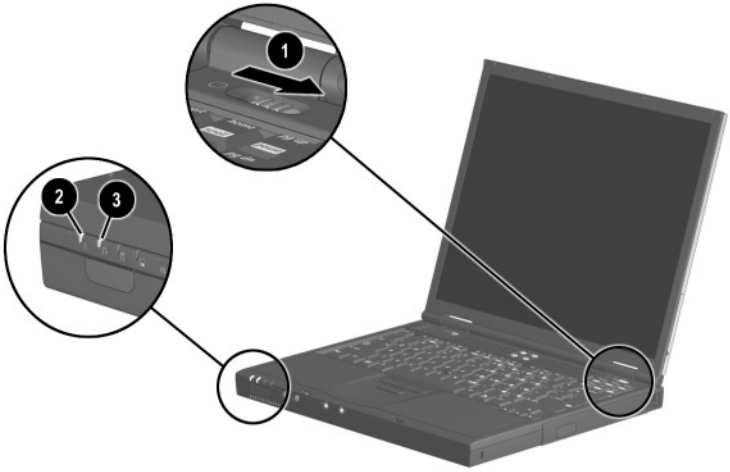
Connecting the notebook to external power

2. Open the notebook by sliding the display release latch to the right ❶ and raising the display ❷.



Opening the notebook

3. Turn on the notebook by sliding and releasing the power switch ❶.



Turning on the notebook

When the notebook is turned on:

- The power/standby light ❷ turns on.
- The battery pack in the battery bay begins to charge and the battery light ❸ turns on. The battery light remains on while the battery pack is charging and turns off when the battery pack is fully charged.
- You are prompted to begin software setup.

For more information on software setup, refer on this CD to the *Software Guide,* "Software Setup" chapter.

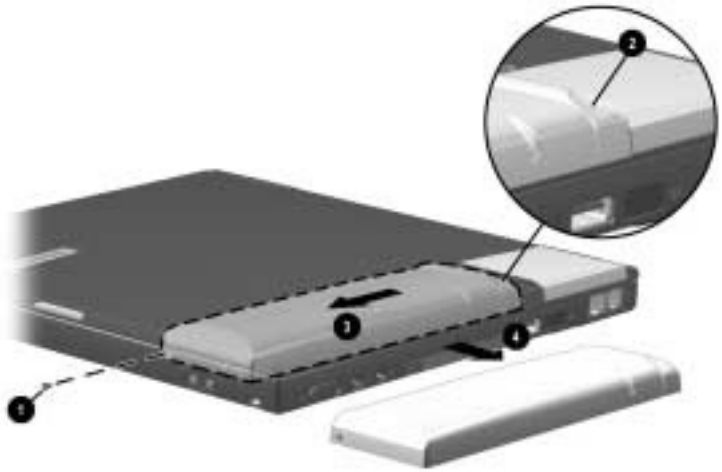
Wireless MultiPort Module

If you ordered your notebook with MultiPort, your notebook was shipped with the MultiPort module preinstalled. Refer on this CD to the *Software Guide*, "Software Setup" chapter for instructions on installing MultiPort drivers and software. For instructions on configuring and using the MultiPort, contact your network administrator or refer to the wireless documentation on this CD.

Removing the Wireless MultiPort Module

1. Turn off the notebook, disconnect any external cables, and remove all battery packs.
2. Remove the Phillips screw, securing the wireless MultiPort module to the display ❶.
3. Press the wireless MultiPort module release button ❷.
4. Slide the wireless MultiPort module toward the front of the notebook ❸ and then slide it to the right ❹ to remove it.

CAUTION: Do not slide the MultiPort Module forward or backward any farther than the length of the tabs on the back edge of the module. Failure to follow this precaution can result in damage to the connectors inside the module and computer display.



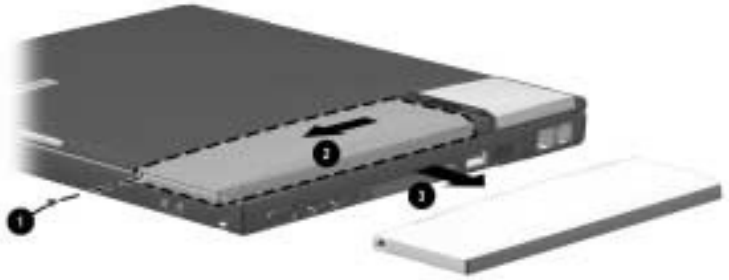
Removing the wireless MultiPort module

5. Install the wireless MultiPort cover and secure it to the display using the Phillips screw.

Installing the Wireless MultiPort Module

Follow these steps to install the wireless MultiPort module.

1. Turn off the computer.
2. Remove the Phillips screw securing the wireless MultiPort cover on the computer display ❶.
3. Remove the wireless MultiPort cover by sliding it toward the front of the computer ❷ and then sliding it to the right ❸.



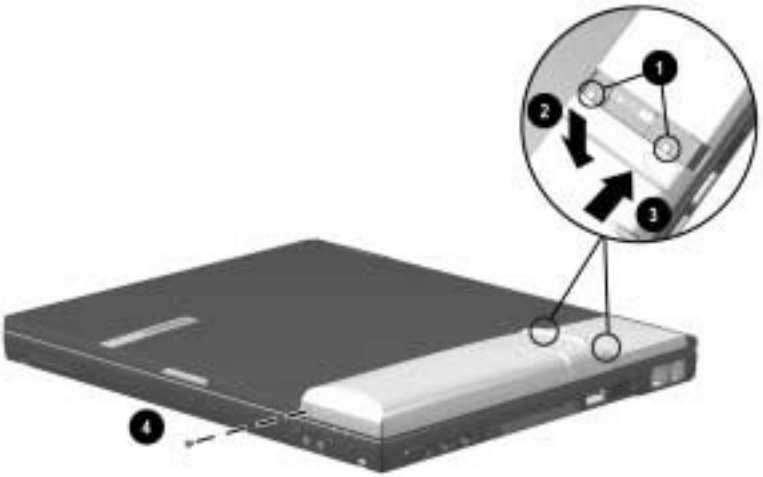
Removing MultiPort Cover

The wireless MultiPort cover should be stored then reinstalled on the display if the wireless MultiPort module is removed at a later date.

4. Place the wireless MultiPort module in the MultiPort bay, making sure to rest the tabs ❶ on the back of the module against the rear edge of the MultiPort bay.
5. Press down on the left rear corner of the wireless MultiPort module ❷, and slide the module toward the back of the notebook ❸ until the connectors are seated.

CAUTION: Do not slide the wireless MultiPort module any farther than the length of the tabs ❶ on the back edge of the module. Failure to follow this precaution can result in damage to the connectors inside the module and notebook display.

6. Install the Phillips screw to secure the wireless MultiPort module to the display ❹.



Securing the wireless MultiPort module.

3

Pointing Devices and Keyboard

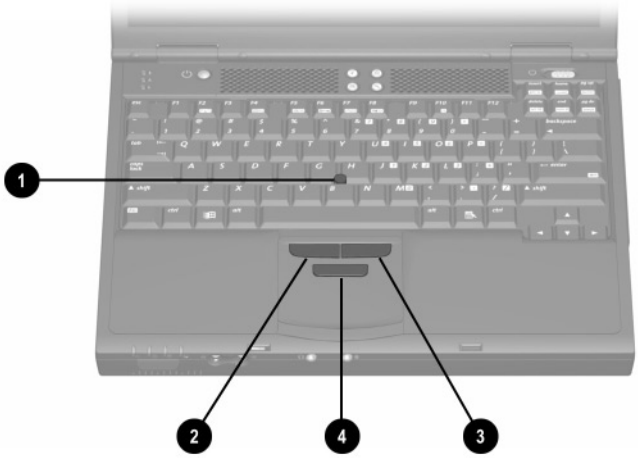
Using a Pointing Device

Using the Pointing Stick (Pointing Stick Models)

To move the pointer, press the pointing stick ❶ in the direction that you want to move the pointer.

Use the left ❷ and right ❸ pointing stick buttons as you would the left and right buttons on an external mouse.

To scroll, hold down the scroll ❹ button as you move the pointer.

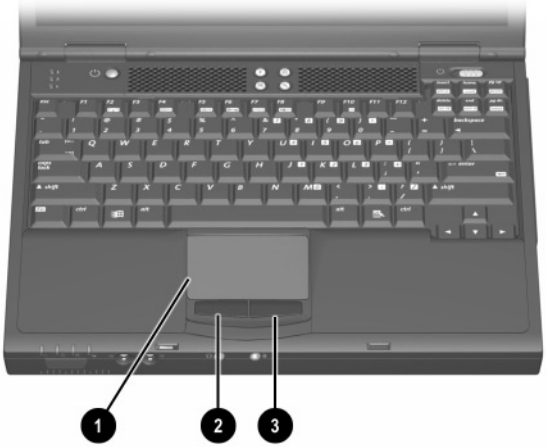


Identifying pointing stick components

Using the TouchPad (TouchPad Models)

To move the pointer, slide your finger across the TouchPad surface ❶ in the direction you want to move the pointer.

Use the left ❷ and right ❸ TouchPad buttons as you would the left and right buttons on an external mouse.



Identifying TouchPad components

Using the Dual Pointing Device (Dual Models)

By default, the pointing stick and TouchPad components can be used interchangeably.

Using the Pointing Stick Components

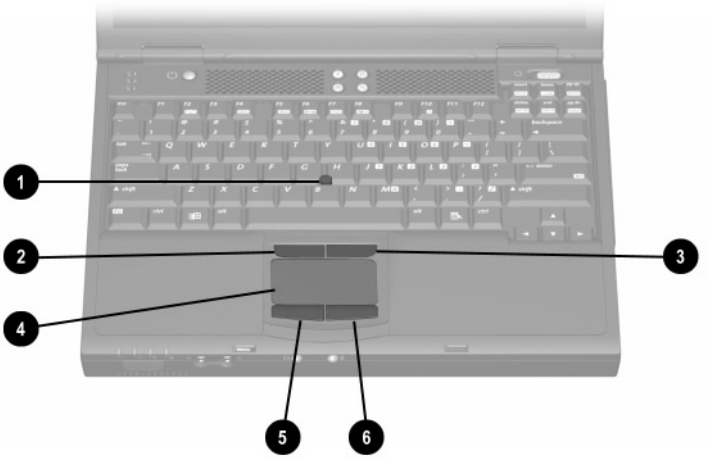
To move the pointer, press the pointing stick ❶ in the direction you want to move the pointer.

Use the left ❷ and right ❸ pointing stick buttons as you would the left and right buttons on an external mouse.

Using the TouchPad Components

To move the pointer, slide your finger across the TouchPad surface ❹ in the direction you want to move the pointer.

Use the left ❺ and right ❻ TouchPad buttons as you would the left and right buttons on an external mouse.



Identifying dual pointing stick–TouchPad components

Setting Pointing Device Preferences

Pointing Stick, TouchPad and Dual Device Preferences

All pointing devices are supported by the mouse software in your operating system. All dual pointing stick–TouchPad components are enabled by default. To access the custom settings available in the software:

- **In Windows 2000 Professional,** select Start > Settings > Control Panel > Mouse icon.
- **In Windows XP,** select Start > Control Panel > Printers and Other Hardware > Mouse icon.

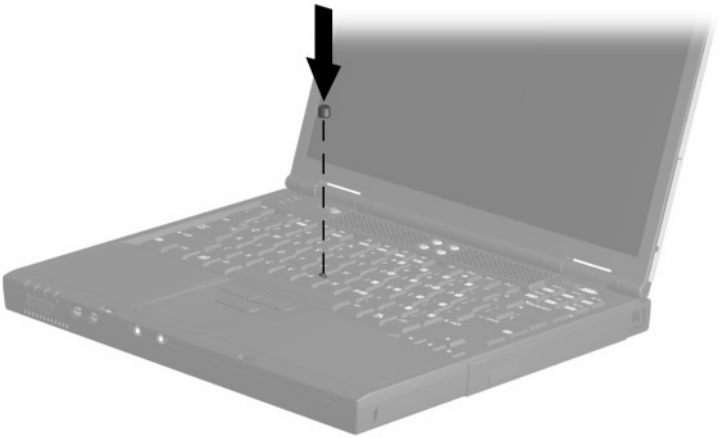
Among the features in Mouse Properties:

- Enable or disable a pointing device.
- TouchPad tapping, which enables you to tap the TouchPad once to select an object or twice to double-click an object.
- Edge motion, which enables you to continue to scroll even though your finger has reached the edge of the TouchPad.
- Palm Check, which helps prevent moving the pointer unintentionally if your palms contact the TouchPad as you type.

Other features, such as mouse speed preferences and mouse trails, are also found in the Mouse Properties windows.

Replacing the Pointing Stick Cap

1. Turn off the notebook.
2. Gently pull off the worn pointing stick cap.
3. Push a replacement cap, included with the notebook, into place.



Replacing the pointing stick cap

Using Hotkeys and Shortcut Keys

Hotkeys and shortcut keys are preset combinations of the **Fn** key ❶ and another key that can execute frequently used system functions.

- A *hotkey* is a combination of the **Fn** key and one of the function keys ❷. The icons on the function keys **F2, F4** to **F8,** and **F10** represent the hotkey functions available on your notebook.
- A *shortcut key* is a combination of the **Fn** key and a key other than a function key.

Identifying hotkeys and function keys

Hotkey and Shortcut Key Quick Reference

Function	Key Combination to Activate Function	Key Combination to Deactivate Function
Turn a device in the MultiPort on or off.*	**Fn+F2**	**Fn+F2**
Switch display and image.	**Fn+F4**	**Fn+F4**
Adjust system volume.	**Fn+F5**	**Fn+F5**
Initiate QuickLock.	**Fn+F6**	Enter power-on password
Set power management options.	**Fn+F7**	**Fn+F7**
View battery charge information.	**Fn+F8**	**Fn+F8**
Adjust screen brightness.	**Fn+F10**	**Fn+F10**
Display system information.	**Fn+Esc**	**Fn+Esc**

*The **Fn+F2** hotkeys can be disabled in Computer Setup. For instructions, refer to “Turning a MultiPort Device On or Off (**Fn+F2**)” later in this chapter.

Using Hotkeys and Shortcut Keys with External Keyboards

Most hotkeys and shortcut keys can be used as described at anytime and from within any application, with 2 exceptions:

- To use hotkeys or shortcut keys on an external keyboard, press the scroll lock key twice, then the other key of the hotkey combination. For example, to use the **Fn+F10** hotkeys, press **scroll lock+scroll lock+F10.**
- Hotkeys and shortcut keys may not function on an external keyboard connected through a USB connector if Easy Access Buttons software is not loaded. You can download the appropriate software and drivers for your system at www.compaq.com. For more information on software updates, refer on this CD to the *Software Guide,* "Software Updates and Restorations" chapter. For more information about Easy Access Buttons, refer to "Using Easy Access Buttons" later in this chapter.

Turning a MultiPort Device On or Off (Fn+F2)

Press **Fn+F2** to toggle a device in the MultiPort on (to send or receive messages) or off (to conserve power).

The **Fn+F2** hotkeys are enabled by default. The device in the MultiPort can be set to remain on or off with the **Fn+F2** hotkeys disabled in Computer Setup. To access these settings:

1. To open Computer Setup, turn on or restart the notebook, then press **F10** as soon as the Compaq splash screen is displayed. (An F10 = ROM Based Setup message is displayed in the lower left corner of the screen.)
   - ❏ To change the language, press **F2.**
   - ❏ To view navigation information, press **F1.**
   - ❏ To return to the Computer Setup menu, press **esc.**
2. Select the Security menu.

3. Select Device Security.
4. Select MultiPort Fn+F2. The status of the device in the MultiPort is displayed at the bottom of the screen.
5. To change the status of the device in the MultiPort, press the **Fn+F2** hotkeys. The device in the MultiPort will remain in the status you select when the **Fn+F2** hotkeys are disabled.
6. To disable the **Fn+F2** hotkeys, set the status field beside MultiPort Fn+F2 to Disable. (To enable the **Fn+F2** hotkeys, set this status field to Enable.)
7. To confirm your settings, press **F10.**
8. To exit Computer Setup, select an exit option from the File menu, then follow the instructions on the screen.

Switching Display and Image (Fn+F4)

The **Fn+F4** hotkeys switch the image among the display devices connected to the notebook. For example, if an external monitor is connected to the notebook, pressing **Fn+F4** switches the image among the notebook display, the external monitor display, and a simultaneous display on both the notebook and the external monitor.

Most external monitors receive video information from the notebook using the external VGA video standard. The **Fn+F4** hotkeys also switch images among devices receiving video information from the notebook in other ways. The following video transmission types are supported by the **Fn+F4** hotkeys:

- LCD (notebook display)
- External VGA (most external monitors)
- S-video (televisions, camcorders, VCRs, and video capture cards with S-video-in jacks)

- Composite video (televisions, camcorders, VCRs, and video capture cards with composite-video-in jacks)
- DVI-D (external monitors that support the DVI-D interface; connection only available through the port replicator)

Adjusting System Volume (Fn+F5)

Press **Fn+F5** to display a system volume slide bar. Click and drag the slide bar upward to increase volume or downward to decrease volume.

You also can adjust the volume by pressing **Fn+F5,** then pressing the left and right arrow keys.

To mute or restore volume, toggle **Fn+F5+M.** Or, press **Fn+F5,** then select or clear the Mute check box.

Initiating QuickLock (Fn+F6)

The QuickLock security feature disables the keyboard and pointing device and displays the log on screen.

Before you can use the QuickLock feature, you must set a Windows system password.

To initiate QuickLock manually, press **Fn+F6.** To exit QuickLock, enter your Windows system password.

Setting Power Conservation Level (Fn+F7)

Press **Fn+F7** to open the Power Schemes window. To select a preset battery conservation level, choose among:

- Always On—Maximizes running time from a single charge.
- Minimal Power Management—Balances system performance with running time.
- Max Battery (Drain)—Runs the notebook at full power.

For information about custom power settings, refer on this CD to the *Software Guide,* "Power" chapter.

Viewing Battery Charge Information (Fn+F8)

Press **Fn+F8** to display charge information for all installed battery packs. The display indicates which battery packs are charging and reports the amount of charge remaining in each battery pack.

Battery pack locations are indicated by number: (1) is the notebook battery bay, and (2) is the notebook MultiBay.

Adjusting Screen Brightness (Fn+F10)

Press **Fn+F10** to display the screen brightness control slide bar, then either:

- Click and drag upward on the slide bar to increase screen brightness or downward to decrease screen brightness, or
- Press the left arrow key to decrease screen brightness or the right arrow key to increase screen brightness.

Displaying System Information (Fn+esc)

Press **Fn+esc** to display information about system hardware components and software version numbers. Press **Fn+esc** a second time to remove the system information from the screen.

The system BIOS date, which may display in a decimal format, is the version number of the system ROM.

Using the Fn Key Sequentially

Many commands are entered by simultaneously pressing the **Fn** key and another key. For example, hotkey commands are entered by pressing **Fn** + a function key.

If you enable sequential **Fn** commands, all commands that can be entered by simultaneously pressing the **Fn** key and another key can also be entered by *sequentially* pressing **Fn** and the desired function key.

While this feature is enabled:

- Whenever you press the **Fn** key, the notebook beeps to indicate that the next key you press will be interpreted as the other key of an **Fn** command.
- **Fn** commands can still be entered by simultaneously pressing the **Fn** key and the other key of the **Fn** command.

To enable the sequential feature, press the **Fn** key 5 times. A beep confirms that the feature is enabled. The feature remains enabled until you disable it.

To disable this feature, press the **Fn** key 5 times. No beep sounds, indicating that the feature has been disabled.

Identifying the Fn key

Using the Embedded Numeric Keypad

The 15 keys of the embedded numeric keypad can be used for the functions indicated by the icons in the upper right corner of each key. Enabling the numeric keypad assigns those functions to the keypad keys. The standard functions of the keypad keys can still be accessed while the numeric keypad is enabled.

Enabling the Numeric Keypad

The num lock light ❶ turns on when you press **Fn+num lk** ❷ to enable the embedded numeric keypad ❸.

Identifying embedded numeric keypad components

The numeric keypad cannot be enabled while an optional external keyboard or keypad is connected to the notebook.

Disabling the Numeric Keypad

To disable the numeric keypad and return the keys to their standard keyboard functions, press **Fn+num lk** a second time.

Using Numeric Keypad Keys as Standard Keys

To use the numeric keypad keys temporarily as standard keys while the numeric keypad is enabled:

- Press and hold **Fn** to type in lowercase.
- Press and hold **Fn+shift** to type in uppercase.

When the **Fn** key is released, the numeric keypad functions return.

Enabling the Numeric Keypad at Startup

By default the notebook starts up with the numeric keypad disabled. You can set the notebook to start up with the numeric keypad enabled. The numeric keypad can be enabled or disabled with **Fn+num lk** in either startup state.

To set the notebook to start up with the numeric keypad enabled:

1. Turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left corner of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Select Advanced > Device Options, then press **enter.**
3. Toggle on the Num Lock State at the Boot field, then press **F10.**
4. To save your preference and exit Computer Setup, select File > Save Changes and Exit, then follow the instructions on the screen.

To disable the numeric keypad at startup, repeat the above procedure, toggling off the Num Lock State at the Boot field.

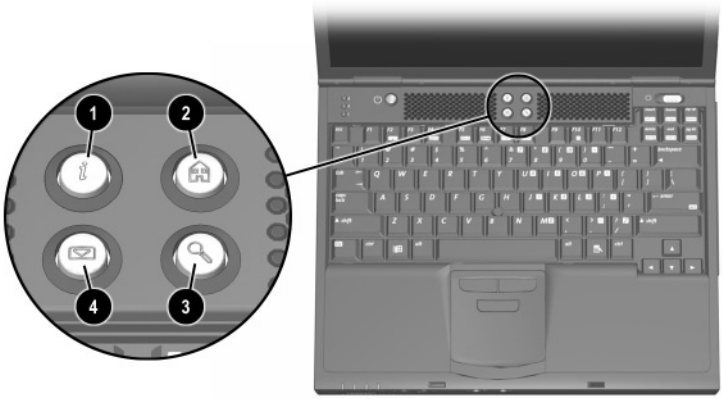
Using the Easy Access Buttons

The 4 Easy Access buttons enable you to access an Internet or network destination or a software application or data file in your system with a keystroke.

Using Default Settings

Until your Internet or network services are set up, all buttons launch the Internet setup wizard.

After your Internet or network services are set up, each button opens your default Web browser and connects you to the default destination represented by the icon on the button.



Identifying Easy Access buttons

Button Name	Default Assignment
❶ Information	Compaq Web site
❷ Home	Personal home page
❸ Search	Launches AltaVista search engine
❹ Email	Launches Microsoft Outlook Express email application

Using Custom Assignments and Schemes

Each button can be assigned to an Internet or network destination or to any software application or data file in your system. For example, an Easy Access Button can be assigned to open your Internet browser to a favorite Web page or to a frequently used application or document.

Button assignments can be grouped into schemes. When you select a scheme, only the button assignments within that scheme are active. Button assignments and schemes can be set up, changed, or deleted in the Easy Access Buttons window.

To access the Easy Access buttons window:

- **In Windows 2000 Professional,** select Start > Settings > Control Panel > Easy Access Keyboard icon.
- **In Windows XP,** select Start > Control Panel > Printers and Other Hardware > Easy Access Buttons icon.

For more information about using button assignments and schemes, open the Easy Access Button window and select Help.

4

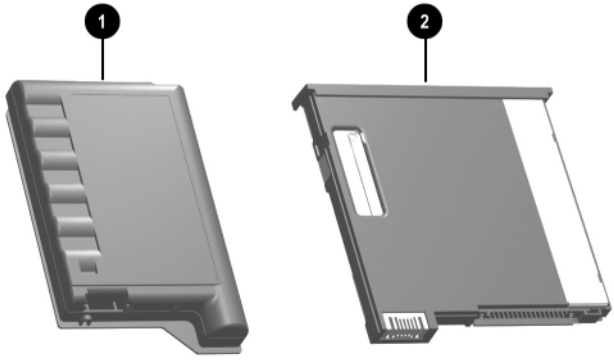
Battery Packs

Charging Battery Packs

Each battery pack in the system charges when the notebook is connected to external power.

The notebook supports up to 2 battery packs.

- A *primary* battery pack ❶ is a lithium ion battery pack that can be used only in the battery bay.
- A *MultiBay* battery pack ❷ is an optional lithium ion battery pack that can be used only in the MultiBay.



Identifying a primary and a MultiBay battery pack

Multiple battery packs in the system charge and discharge in a preset sequence determined by location.

- Charge sequence:
  1. Notebook battery bay
  2. Notebook MultiBay
- Discharge sequence:
  1. Notebook MultiBay
  2. Notebook battery bay

Using a New Battery Pack

Fully charge the battery pack in the notebook battery bay or the notebook MultiBay while the notebook is connected to an external power source or docked in a Port Replicator.

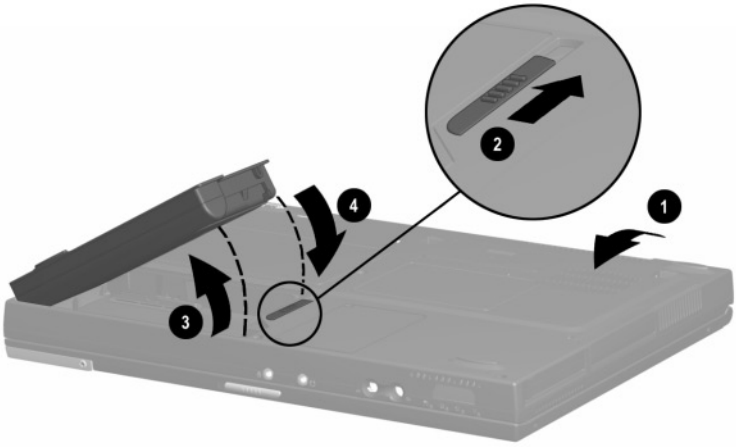
Although you can use a new battery pack that has been fully charged to run the notebook, battery charge displays are more accurate after calibration. For calibration instructions, refer on this CD to the *Software Guide,* "Calibrating a Battery Pack" in the "Power" chapter.

Replacing Battery Packs

Replacing a Primary Battery Pack

CAUTION: When removing a primary battery pack that is the only power source available to the system, prevent loss of information by initiating Hibernation or turning off the notebook before removing the battery pack.

1. Close the display, then turn the notebook bottom side up ❶.
2. Remove or insert the battery pack.
   - ❏ To remove a battery pack, slide the battery release latch ❷. When the battery pack tilts upward, remove it from the battery bay ❸.
   - ❏ To insert a battery pack, slide the battery pack into the battery bay until it is seated ❹.
3. Turn the notebook right side up and open the display. If the notebook is in Hibernation, slide the power switch to resume operation.

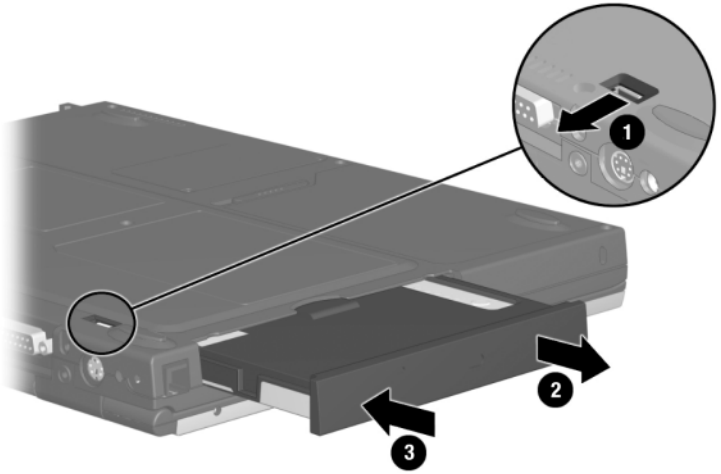


Replacing a primary battery pack

Replacing a MultiBay Battery Pack

CAUTION: When removing a MultiBay battery pack that is the only power source available to the system, prevent loss of information by initiating Hibernation or turning off the notebook before removing the battery pack.

1. To replace a MultiBay battery pack, close the display and turn the notebook bottom side up.
   - ❏ To remove a battery pack, slide the MultiBay release latch ❶ on the bottom of the notebook and pull the battery pack out of the MultiBay ❷.
   - ❏ To insert a battery pack, slide the battery pack into the MultiBay until it is seated ❸.
2. Turn the notebook right side up and open the display. If the notebook is in Hibernation, slide the power switch to resume operation.



Replacing a MultiBay battery pack

Storing a Battery Pack

If a notebook will be unused and unplugged for more than 2 weeks, remove and store the battery pack(s).

CAUTION: To prevent damage to a battery pack, do not expose it to high temperatures for an extended time.

High temperatures accelerate the self-discharge rate of a stored battery pack. To prolong the charge of a stored battery pack, store it in a cool, dry place within the following temperature ranges.

Storage Time	Temperature Range °F	Temperature Range °C
Less than 1 month	32°–122°	0°–50°
No more than 3 months	32°–104°	0°–40°
Unlimited	32°– 86°	0°–30°

Recycling a Used Battery Pack

WARNING: There is a risk of fire and chemical burn if a battery pack is handled improperly. Do not disassemble, crush, or puncture a battery pack or short the contacts on a battery pack. Do not expose a battery pack to temperatures higher than 60° C (140° F), or dispose of a battery pack in water or fire.

When a battery pack has reached the end of its useful life, do not dispose of it in general household waste. Use one of the following methods, depending on your geographic location:

- In North America, you can dispose of battery packs by using the Compaq battery recycling program. This program provides you with a postage-paid battery pack mailer pre-addressed to a reclamation facility where the metals are recycled. For more information, call the telephone number listed for your location in the *Worldwide Telephone Numbers* booklet included with your notebook.
- In Europe, dispose of or recycle battery packs by using the public collection system or by returning them to Compaq, your authorized Compaq partners, or their agents.
- In other regions, refer to the *Worldwide Telephone Numbers* booklet included with the notebook to contact a Compaq authorized dealer, reseller, or service provider to request information about battery pack disposal.

5

Removable Drives

Adding a Drive to the System

Removable drives enable you to store and access data.

A standard drive can be added to the system by inserting the drive into the notebook or optional Port Replicator. A diskette drive can also be inserted into an optional external diskette drive bay. In addition, a USB drive can be added by connecting the drive to a USB connector on the notebook or an optional Port Replicator.

For information about connecting a USB drive or an external diskette drive bay, refer to "External Devices" chapter.

The notebook has 2 drive bays:

- The hard drive bay supports only a hard drive. The hard drive in the hard drive bay is the *primary* hard drive.
- The MultiBay supports any 9.5-mm removable drive, including the following devices:
  - Hard drive (inserted into a MultiBay hard drive adapter)
  - CD or CD-RW drive
  - DVD or DVD/CD-RW combination drive
  - Diskette drive
  - SuperDisk drive
  - Zip drive

Caring for Drives

Drives are fragile notebook components that must be handled with care. The following cautions apply to all drives. Additional cautions are included with the procedures to which they apply.

CAUTION: To prevent loss of work or damage to the notebook or a drive:

- Handle a drive carefully. Do not drop it.
- When inserting a drive, use only enough pressure to seat the drive. Excessive force can damage drive connectors.
- Do not spray a drive with a cleaner or other liquid or expose it to temperature extremes.
- Do not remove the primary hard drive (the hard drive in the hard drive bay) except for repair or replacement.
- To prevent electrostatic damage to the notebook or a drive:

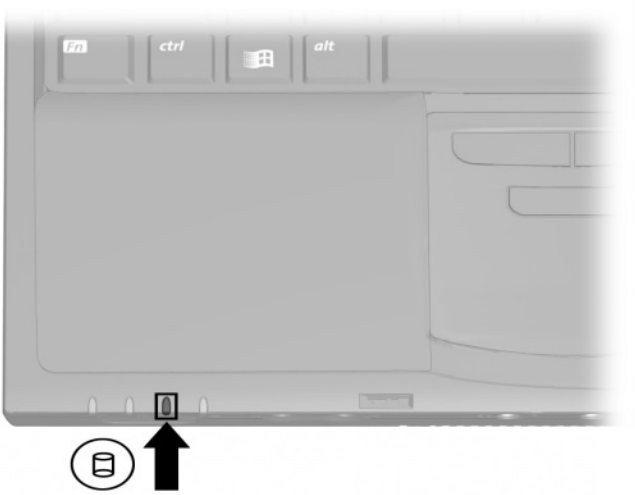
  1. Discharge yourself from static electricity before handling a drive by touching a grounded metal object, and

  2. Avoid touching the connectors on a drive. For more information about preventing electrostatic damage, refer on this CD to *Regulatory and Safety Notices.*
- Avoid exposing a hard drive to devices with a magnetic field, such as airport walk-through metal detectors and security wands.
- If you mail a drive, ship it in packaging that protects it from shock, vibration, temperature, and humidity. Label the package "FRAGILE."

Airport security devices that check carry-on luggage placed on a conveyor belt use x-rays instead of magnetism and will not damage a hard drive.

IDE Drive Light

The IDE (Integrated Drive Electronics) light turns on when any type of drive, except a diskette drive, is being accessed.



Identifying the IDE drive light

Replacing a Primary Hard Drive

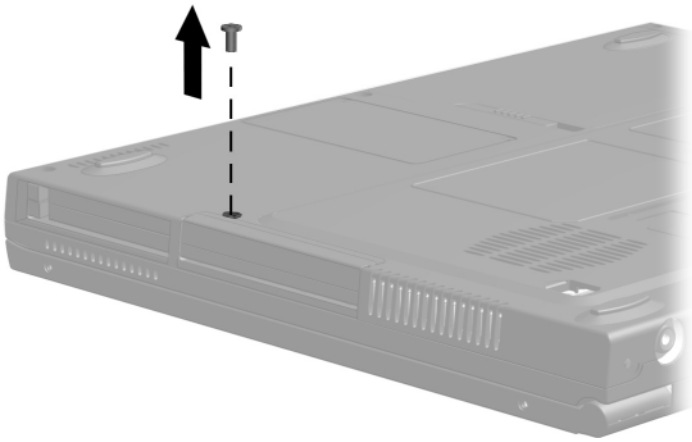
The hard drive in the hard drive bay is the *primary* hard drive.

CAUTION: To prevent system lockup and loss of information:

- Shut down the notebook before removing the hard drive from the hard drive bay. Do not remove the hard drive while the notebook is on, in Standby, or in Hibernation.
- If you are not sure whether the notebook is in Hibernation, turn the notebook on and then shut it down.

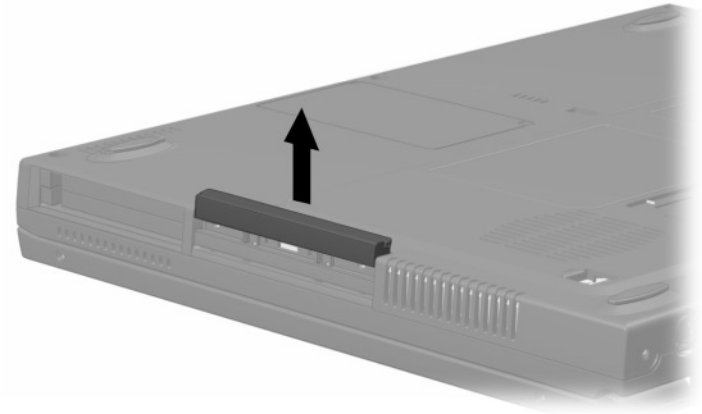
To replace the primary hard drive:

1. Save your work.
2. Shut down the notebook and close the display.
3. Turn the notebook bottom side up.
4. Remove the hard drive retaining screw.



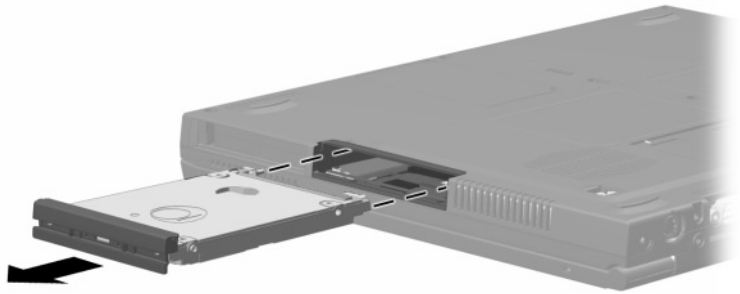
Removing the hard drive retaining screw

5. With the drive bottom side up, slide the bottom half of the front bezel upward to create a handle.



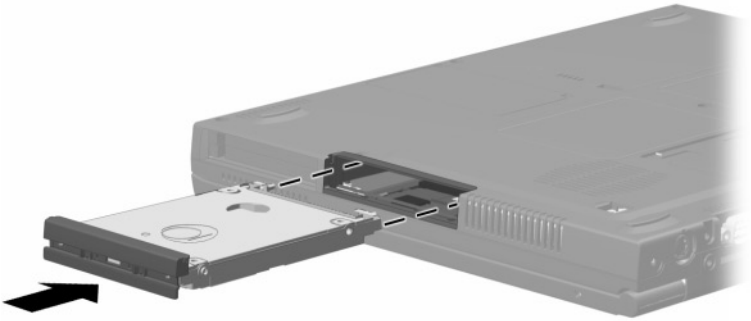
Extending the front bezel to create a handle

6. To remove a hard drive, pull the drive out of the bay.



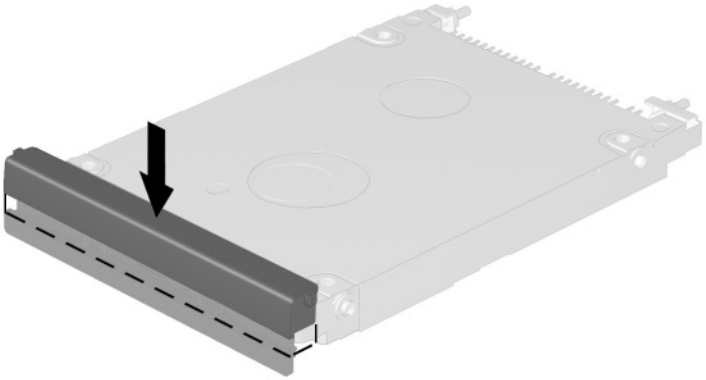
Removing the hard drive from the hard drive bay

7. To insert a hard drive, slide the hard drive into the bay until the drive is seated.



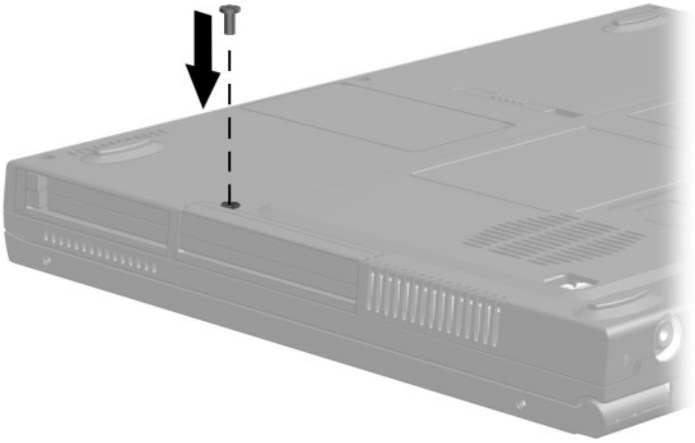
Inserting the hard drive into the hard drive bay

8. Close the front bezel of the hard drive.



Closing the front bezel of a hard drive

9. If you have inserted a hard drive, reinsert the hard drive retaining screw. (If you removed but did not replace a hard drive, put the retaining screw in a safe place.)



Replacing the hard drive retaining screw

Removing and Inserting a MultiBay Drive

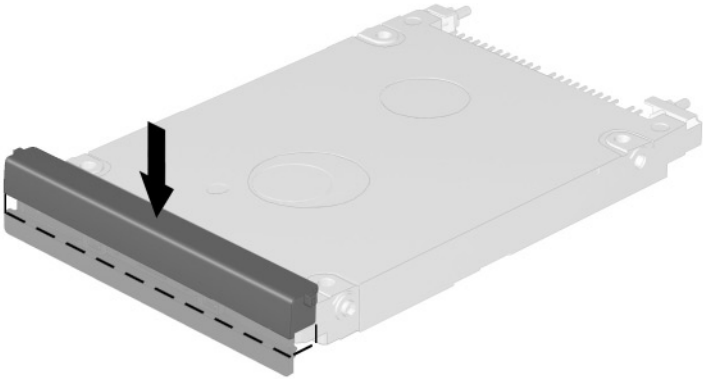
Using a MultiBay Hard Drive Adapter

A hard drive must be inserted into an optional MultiBay hard drive adapter before it can be used in the MultiBay.

A hard drive assembly (a hard drive inserted into a MultiBay adapter) is inserted into and removed from the MultiBay the same way as any other MultiBay drive.

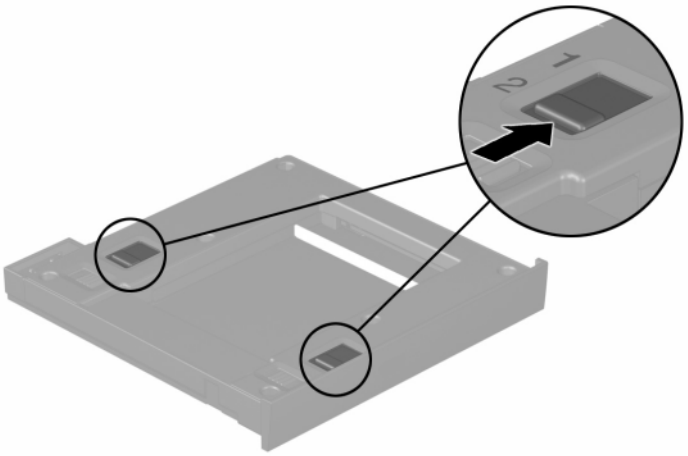
Inserting a Hard Drive into a MultiBay Hard Drive Adapter

1. Close the front bezel of the hard drive.



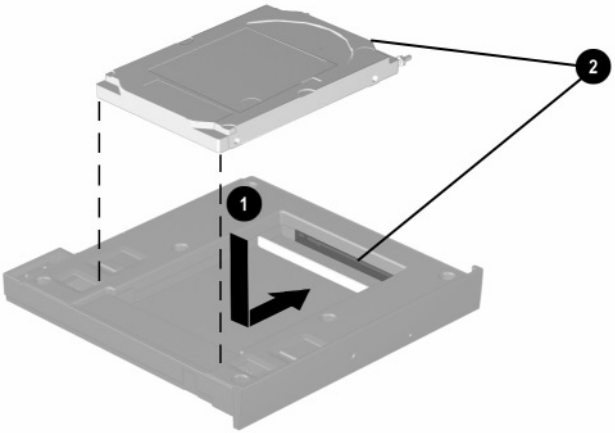
Closing the front bezel of a hard drive

2. Slide the 2 adapter selection switches into position 1.



Sliding the adapter selection switches

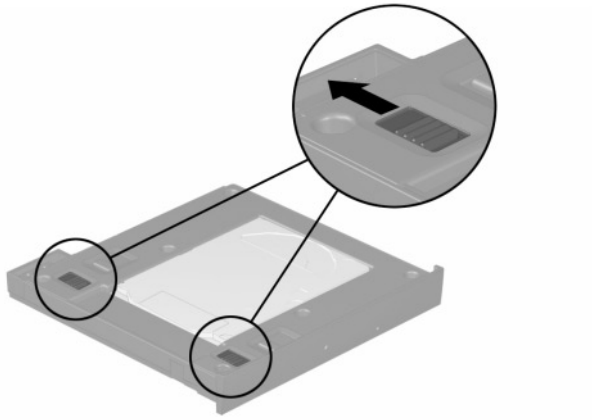
3. Lower the drive into the adapter ❶, then slide the drive connectors on the drive toward the drive connectors in the adapter ❷ until the connectors engage and the drive is seated.



Inserting a hard drive into a MultiBay hard drive adapter

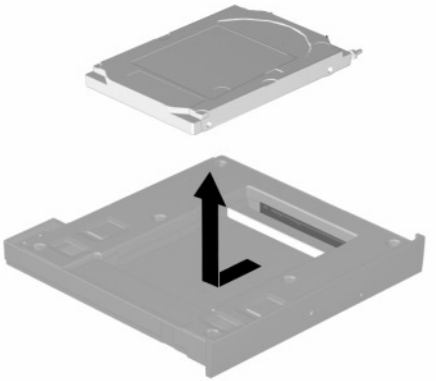
Removing a Hard Drive from a MultiBay Hard Drive Adapter

1. Slide the adapter release latches to the left.



Sliding the adapter release latches

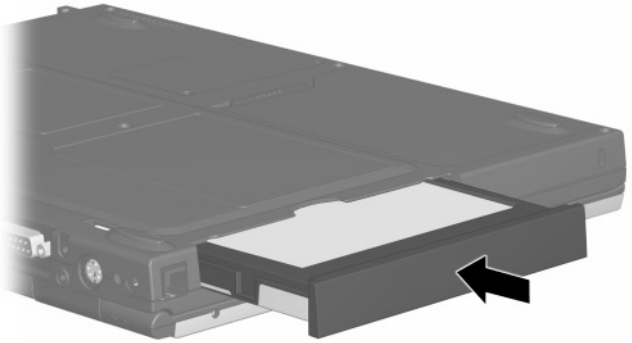
2. Gently disengage the drive connectors by sliding the drive toward the front of the adapter.
3. Remove the drive from the adapter.



Removing a hard drive from a MultiBay hard drive adapter

Inserting a Drive into the MultiBay

1. Before inserting a hard drive into the MultiBay, insert the drive into a MultiBay hard drive adapter as described earlier.
2. Turn the notebook bottom side up.
3. With the connector on the drive or drive assembly facing the MultiBay, slide the drive or drive assembly into the MultiBay until it is seated.



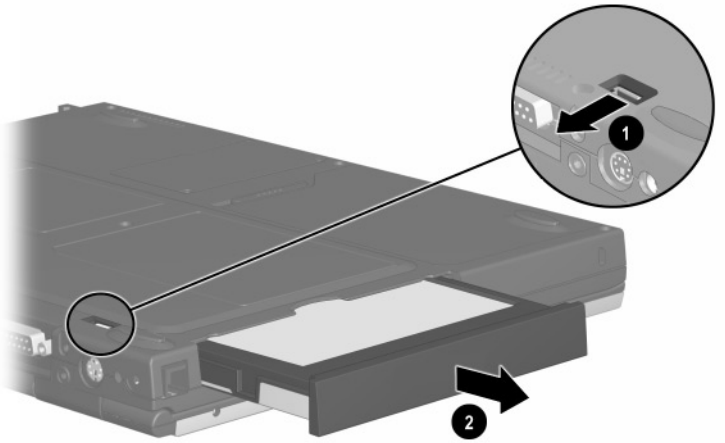
Inserting a hard drive assembly into the MultiBay

Removing a Drive from the MultiBay

CAUTION: To prevent system lockup and loss of information, stop the drive before removing it. To stop the drive:

- **Windows 2000 Professional**—Select the Unplug or Eject Hardware icon on the taskbar, then select the drive you want to remove. When it is safe to remove the drive, a message is displayed.
- **Windows XP**—Select the Safely Remove Hardware icon on the taskbar, then select the drive you want to remove. When it is safe to remove the drive, a message is displayed. (To display taskbar icons, select Show Hidden Icons in the system tray.)

1. If the drive has a media tray, remove the media, then close the tray.
2. Stop the drive as instructed in the preceding caution and close the notebook display.
3. Turn the notebook bottom side up.
4. Slide the MultiBay release latch ❶ toward the rear of the notebook.
5. Pull the drive or drive assembly out of the MultiBay ❷.



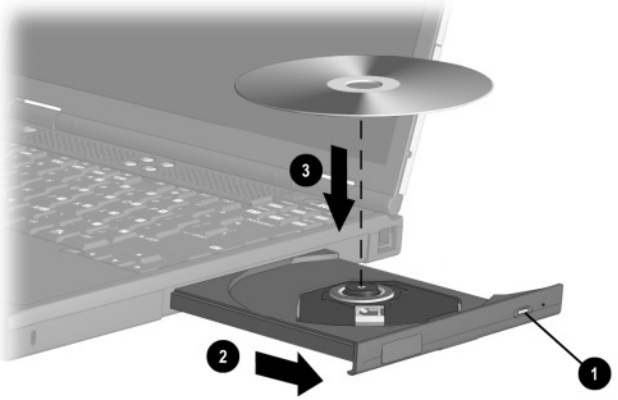
Removing a drive from the MultiBay

CAUTION: To protect the MultiBay opening when no device is inside, insert the weight saver. This device prevents damage to the MultiBay and does not increase notebook weight.

Inserting and Removing Drive Media

Inserting Optical Drive Media

1. Turn on the notebook.
2. Press the media release button ❶ on the drive bezel to release the media tray.
3. Pull the tray out until it is fully extended ❷. Position a CD or one-sided DVD over the tray with the label side up.
4. Gently press the disc onto the tray spindle ❸ until the disc snaps into place. Handle the disc by the edges, not the flat surfaces. If the media tray is not fully extended, tilt the disc to position it over the tray spindle, then press it into position.
5. Close the media tray.



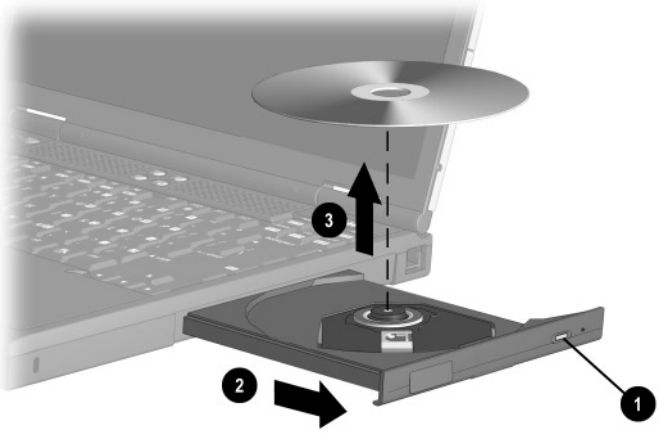
Inserting a disc into an optical drive

After you insert a DVD, a short pause is normal as autorun opens the DVD and WinDVD player.

Removing Optical Drive Media (with Power)

If power is available:

1. Turn on the notebook.
2. Press the release button ❶ on the drive bezel to release the media tray, then pull the tray out until it is fully extended ❷.
3. Remove the disc from the tray ❸ by gently pushing down on the spindle while lifting the outer edges of the disc. Handle the disc by the edges, not the flat surfaces. If the media tray is not fully extended, tilt the disc as you remove it.
4. Close the media tray and place the disc in a protective case.

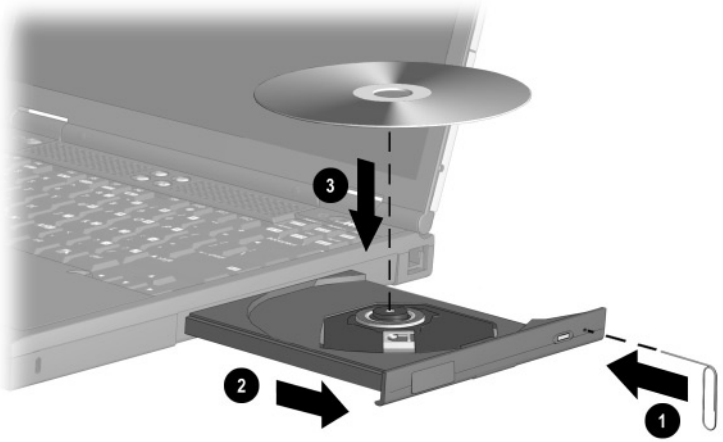


Removing a disc from an optical drive when power is available

Removing Optical Drive Media (No Power)

If power is unavailable:

1. Insert a paper clip into the release access ❶ in the front bezel of the drive.
2. Press gently on the paper clip until the media tray is released, then pull out the tray until it is fully extended ❷.
3. Remove the disc from the tray ❸ by gently pushing down on the spindle while lifting the outer edges of the disc. Handle the disc by the edges, not the flat surfaces. If the media tray is not fully extended, tilt the disc as you remove it. To protect the disc, place it in a protective case.
4. Close the media tray.

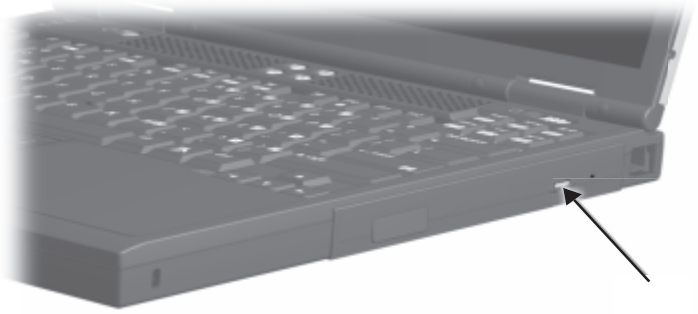


Removing a disc from an optical drive when power is not available

Inserting a Diskette or Disk

To insert a diskette or disk into a diskette, SuperDisk, or Zip drive, gently push the medium, label side up, into the drive until it clicks into place.

The media eject button ejects to show that the medium has been inserted correctly.



Identifying the media eject button on a diskette drive

Removing a Diskette or Disk

To remove a diskette or disk from a diskette, SuperDisk, or Zip drive:

1. Press the media eject button on the drive to eject the medium.
2. Remove the medium from the drive.

Displaying Media Contents

When an optical drive medium is inserted into a drive, the contents of the medium display on the screen if autorun is enabled.

To display the contents of a medium when AutoPlay (autorun) is not enabled:

1. Click Start > Run, then type:

   X:

   where X = the designation of the drive containing the medium.

2. Press **enter.**

Locating Drive Software Information

Software you need to play CDs and DVDs is preinstalled on the notebook. For more information, refer on this CD to the *Software Guide,* "CD and DVD Software" chapter.

To create and copy CDs or DVDs, you will need additional software, such as Easy CD Creator 5 Basic, included with some notebook models.

Initiating Standby or Hibernation

If Standby or Hibernation is accidentally initiated while a drive medium (such as a diskette, disk, CD, CD-RW, or DVD) is in use, the following results may occur:

- Your playback may be interrupted.
- You may see a pop-up warning: “Putting the computer into Hibernation or Standby may stop the playback. Do you want to continue?” Select No.

Resume from Hibernation or Standby by sliding the power switch. Audio or video may resume or you may need to restart the medium.

CAUTION: To prevent possible video degradation and loss of audio or video playback functionality, do not initiate Standby or Hibernation while playing any media.

6

Audio and Video

Using Audio Features

Identifying Audio Features

The notebook provides the audio components described in the following table:

Identifying audio features

Audio Feature		Function
❶	Speakers (2)	Provide stereo audio playback for multimedia applications.
❷	Volume buttons (2)	Adjust or mute system volume.
❸	Stereo speaker/ headphone (line-out) jack	Connects powered stereo speakers, headphones, a headset, or an audio/visual device such as a television or VCR. ✎ Internal speakers are muted when a headphone is connected to the line-out jack.
❹	Microphone	Supports audio input whether the display is open or closed; has a standard sensitivity of –50 dB.
❺	Microphone jack	Supports a single-sound channel (monaural) microphone.

Using the Microphone Jack

When connecting a microphone to the microphone jack, use a single-sound channel (monaural) microphone with a 3.5-mm plug. A monaural electret condenser microphone is recommended.

- If you connect a stereo microphone, left-channel sound will record on both channels.
- If you connect a dynamic microphone, the recommended sensitivity may not be achieved.
- When an external microphone is connected to the notebook, the notebook microphone is disabled.

Using the Stereo Speaker/Headphone Jack

WARNING: To reduce the risk of personal injury, adjust the volume before putting on headphones or a headset.

CAUTION: To prevent possible damage to an external device, do not plug a single-sound channel (monaural) connector into the stereo speaker/headphone (line-out) jack.

When connecting a device to the stereo speaker/headphone (line-out) jack:

- Use only a 3.5-mm stereo plug.
- For best sound quality, use 24-ohm to 32-ohm headphones.

When an external audio device is connected to the stereo speaker/headphone (line-out) jack, the notebook stereo speakers are disabled.

Adjusting Volume

To adjust volume, use any of the following controls:

- Notebook volume buttons
  - To increase volume, press the right button.
  - To decrease volume, press the left button.
  - To mute or restore volume, press both buttons simultaneously.
- Keyboard **Fn+F5** hotkeys
  - To increase or decrease volume, press **Fn+F5,** then move the slide bar on the screen or press the keyboard arrow keys.
  - To mute or restore volume, toggle **Fn+F5+M.** Or, press **Fn+F5,** then select or clear the Mute check box.
- Windows Volume Control

- **In Windows 2000 Professional,** the Windows Volume Control icon is displayed on the taskbar.
- **To display the Volume Control icon in Windows XP:**

  1. Select Start > Control Panel > Sounds, Speech and Audio Devices > Sounds and Audio Devices.
  2. Select the Volume tab.
  3. Select the check box for Place Volume Icon in the Taskbar.
  4. Select the OK button.

Volume can also be adjusted within some applications.

Using Video Features

The S-video-out jack connects an optional S-video device, such as a television, VCR, camcorder, overhead projector, or video capture card.

The S-video connection usually provides a higher quality image than a composite-video connection.

If you are setting up a configuration that combines audio and video functions, such as playing a movie from a DVD to a television, you will need a standard audio cable available from most television, computer, or electronics retailers.

The notebook can support one S-video device connected to the S-video-out jack while simultaneously supporting an image on the notebook display and on any other supported external displays.

Using the S-Video-Out Jack

To transmit video signals through the S-video-out jack, you need an S-video cable available from most television, VCR, or electronics retailers.

To connect a video device to the S-video-out jack:

1. Plug either end of the S-video cable into the S-video-out jack on the notebook ❶.
2. Connect the other end of the cable to the video device as instructed in the device documentation ❷.

Connecting a device to the S-video-out jack on the notebook

If the S-video-out jack on the notebook is not accessible while the notebook is docked, you can connect the device to the S-video-out jack on the optional Port Replicator.

Changing the Video Mode

Color television standard modes vary even within regions. However, NTSC is common in North America; PAL, in Europe, China, Africa, and the Middle East; NTSC-J, in Japan; and PAL-M, in Brazil. Other South and Central American regions may use NTSC, PAL, or PAL-M.

The default color television standard mode is NTSC.

To change the color television standard mode from NTSC:

1. Turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left corner of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Select Advanced > Device Options, then press **enter.**
3. Enter your preference, then press **F10.**
4. To save your preference and exit Computer Setup, select File > Save Changes and Exit, then follow the instructions on the screen.

7

Communications Devices

Connecting a Modem Cable

Using the RJ-11 Cable

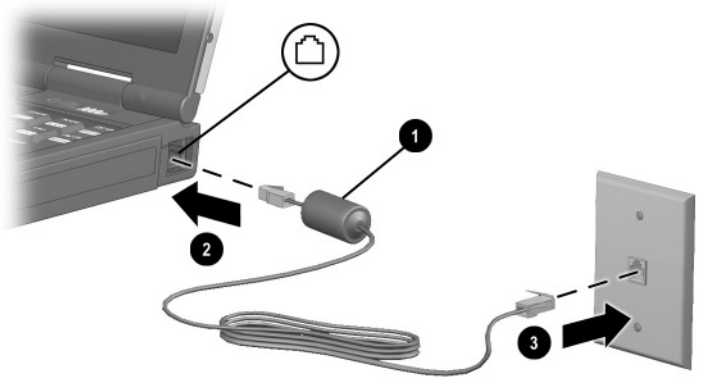
A modem cable, which has a 6-pin RJ-11 connector at each end, must be connected to an analog telephone line. Jacks for digital PBX systems may resemble analog telephone jacks, but are not compatible with the modem.

WARNING: Connecting the notebook to a digital line can permanently damage the modem. Immediately disconnect an accidental connection to a digital line.

1. If the modem cable contains noise suppression circuitry ❶, which prevents interference from TV and radio reception, orient the circuitry end of the cable toward the notebook.
2. Plug the modem cable into the RJ-11 jack on the notebook ❷.

WARNING: To reduce the risk of electrical shock, fire, or damage to the equipment, do not plug a modem cable into the RJ-45 jack.

3. Plug the modem cable into the RJ-11 telephone jack ❸.



Connecting the RJ-11 modem cable

For more information about using the modem or about using AT commands and dial modifiers, refer on this CD to the *Modem and Networking* guide or the *Modem Command Guidelines* guide.

Using a Country-Specific Adapter Cable

Telephone jacks vary by country. To use the modem and the RJ-11 cable outside the country in which you purchased the notebook, you must obtain a country-specific modem adapter.

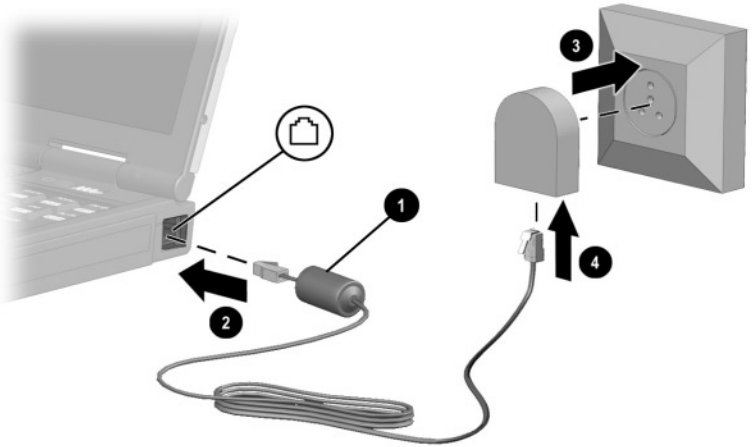
Refer to the *Modem and Networking* guide on this CD for more details about using your notebook internationally.

To connect the modem to an analog telephone line that does not have an RJ-11 telephone jack:

1. If the modem cable contains noise suppression circuitry ❶, which prevents interference from TV and radio reception, orient the circuitry end of the cable toward the notebook.
2. Plug the modem cable into the RJ-11 jack on the notebook ❷.

WARNING: To reduce the risk of electrical shock, fire, or damage to the equipment, do not plug a modem cable into the RJ-45 jack.

3. Plug the country-specific modem adapter ❸ into the telephone jack.
4. Plug the modem cable ❹ into the country-specific modem adapter.

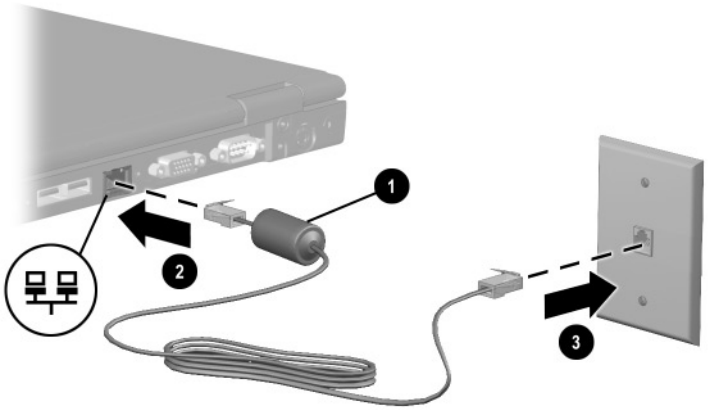


Connecting a modem cable using a modem adapter

Connecting a Network Cable

A network cable has an 8-pin RJ-45 connector at each end and may contain noise suppression circuitry, which prevents interference with TV and radio reception.

1. Orient the end of a network cable with noise suppression circuitry ❶ toward the RJ-45 jack on the notebook.
2. Plug the network cable into the RJ-45 jack ❷.
3. Plug the other end of the cable into a network jack ❸.
4. Start or restart the notebook.

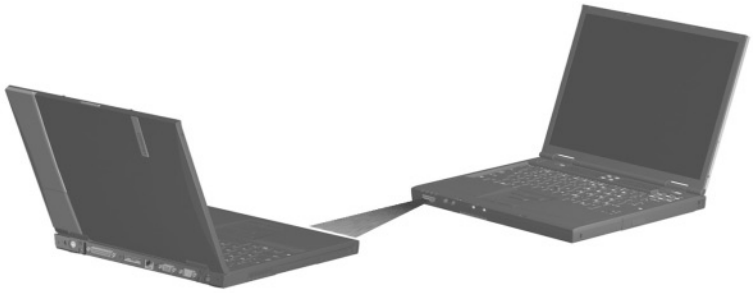


Connecting a network cable

Linking to an Infrared Device

The notebook is IrDA-compliant (4 Mbps standard) and can communicate with another infrared-equipped device that is also IrDA-compliant.

Infrared signals are sent through an invisible beam of infrared light and require an unobstructed line of sight path.



Linking to an infrared device

The infrared port supports both low-speed connections up to 115 kilobits per second (Kbps) and high-speed connections up to 4 megabits per second (Mbps).

Infrared performance may vary depending on performance of infrared peripherals, distance between infrared devices, and applications used.

Configuring the Infrared Port

If you are using optional infrared software and a preinstalled operating system, the following information may be helpful.

- The infrared port default settings are:
  - DMA = 1
  - I/O addresses = 3E8-3EFh
  - IRQ = 3
- The optimal port selection in Direct Cable Connection is Infrared Port.

Setting Up an Infrared Transmission

For information about using infrared software, refer to your operating system Help file.

To set up infrared devices for optimal transmission:

- Prepare the infrared ports on both devices for transmission.
- Position the devices so that their infrared ports face each other at a distance no greater than 3.3 feet (1 meter).
- Position the ports so that they face each other directly. Because the maximum capture angle is 30 degrees, the ports must be aligned no more than 15 degrees off center.
- Shield the ports from direct sunlight, flashing incandescent light, and energy-saving fluorescent light.
- Be sure that no signals from remote control or other wireless devices, such as headphones or audio devices, aim at a port.
- During the transmission, do not move either device and do not allow objects or movement to disrupt the beam.

Using Standby with Infrared

Standby is not compatible with infrared transmission. If the notebook is in Standby, an infrared transmission cannot be initiated.

If Standby is initiated *during* an infrared transmission, the transmission stops. To resume from Standby, slide the power switch. The transmission resumes when the notebook resumes from Standby.

8

External Devices

Connecting a Standard Device

The jacks and connectors described in this guide support the standard external devices that specify them.

- For information about which jack or connector to use, refer to the documentation included with the device.
- For information about installing or loading any software, such as drivers required by the device, refer to the device documentation, your operating system documentation, or the device manufacturer's Web site.
- To connect both a pointing device and a keyboard to the keyboard/pointing device (PS/2) connector, use a Y-adapter available from most notebook or electronics retailers.

To connect a standard external device to the notebook:

1. If you are connecting a powered device, be sure that the device is turned off.
2. Connect the device to the appropriate jack or connector on the notebook.
3. If you are connecting a powered device, plug the device power cord into a grounded electrical outlet.
4. Turn on the device.

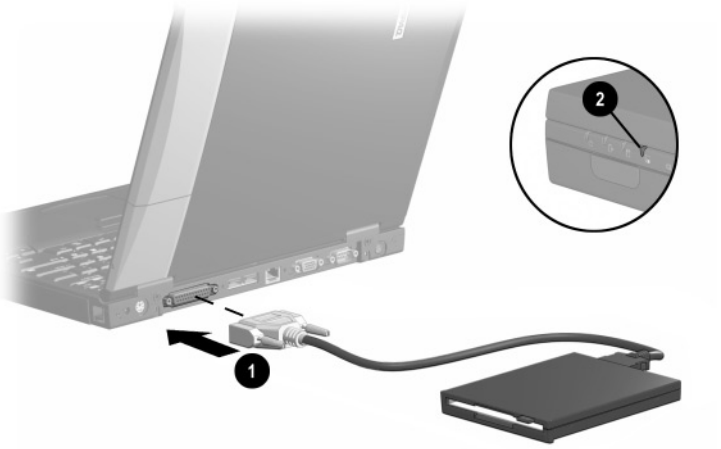
If a properly connected external monitor does not display an image, pressing the **Fn+F4** hotkeys may switch the image to the monitor.

Connecting an External Diskette Drive

An optional external diskette drive bay supports only a diskette drive. No other type of drive, including a SuperDisk or Zip drive, can be used in this bay.

To connect the external diskette drive bay, connect the free end of the diskette drive cable to the parallel connector on the notebook ❶. To disconnect the bay, disconnect the cable from the notebook.

When a diskette drive in the external diskette drive bay is being accessed, the diskette drive light on the notebook turns on ❷.



Connecting or disconnecting an external diskette drive

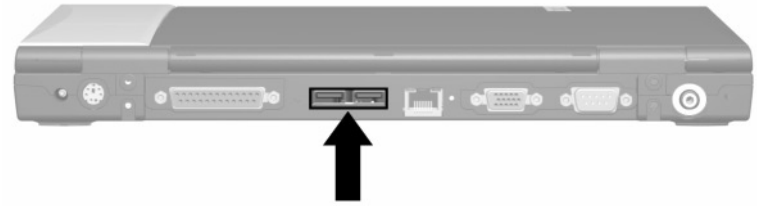
Connecting a USB Device

USB (Universal Serial Bus) is a hardware interface that can be used to connect external devices, such as a USB keyboard, mouse, drive, printer, scanner, or hub to the notebook or an optional Port Replicator.

USB hubs can be connected to a USB connector on the notebook or a Port Replicator or to other USB devices. Hubs support varying numbers of USB devices and are used to increase the number of USB devices in the system:

- Powered hubs must be connected to external power.
- Unpowered hubs must be connected either to a USB connector on the notebook or to a port on a powered hub.

Some USB devices may require additional support software, which is usually included with the device. For more information and software installation instructions, refer to the documentation included with the device.



Identifying the 2 USB connectors on the notebook

Using a USB Device

USB devices function in the system the same as comparable non-USB devices, with one exception: By default, USB devices do not function unless an operating system that supports USB is loaded.

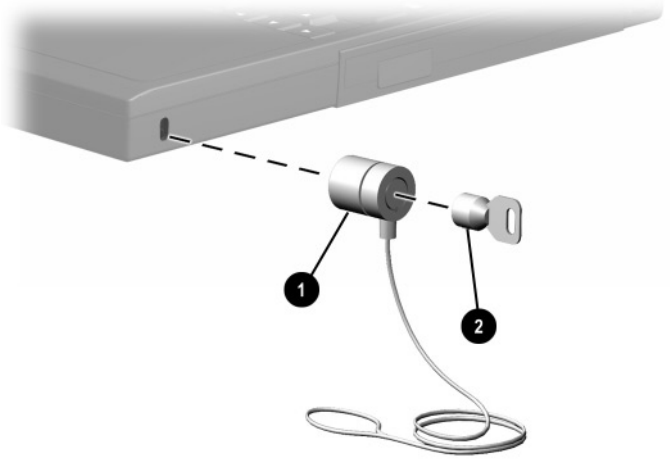
To use a USB keyboard, mouse, or hub connected to a USB connector on the notebook during startup or in a non-Windows application or utility, enable USB legacy support.

Enabling USB Legacy Support

1. Turn on or restart the notebook, then press **F10** while the F10 = ROM Based Setup message is displayed in the lower left corner of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Select the Advanced menu > Device Options.
3. Select Enable USB legacy support.
4. To save your preference and exit Computer Setup, select File > Save Changes and Exit, then follow the instructions on the screen.

Connecting an Optional Cable Lock

Loop the cable around a secure object, then insert the security cable lock ❶ into the security cable slot and lock it with the cable lock key ❷.



Connecting an optional cable lock

9

Hardware Upgrades

To order hardware or learn more about upgrades and accessories, visit the Compaq Web site at http://www.compaq.com, or refer to *Worldwide Telephone Numbers,* included with the notebook, to contact a Compaq authorized dealer, reseller, or service provider.

For information about obtaining and installing software updates and upgrades, refer on this CD to the *Software Guide,* "Software Updates and Restorations" chapter.

Using PC Cards

A PC Card is a credit card-sized accessory designed to conform to the standard specifications of the Personal Computer Memory Card International Association (PCMCIA). The notebook supports both 32-bit CardBus and 16-bit PC Cards.

Selecting a PC Card Slot

PC Cards are classified as Type I, Type II, and Type III. The 3 types are about the same length and width, but vary in thickness.

- Type I and Type II PC Cards can be used alone in the top or bottom PC Card slot or in any combination.
- A Type III PC Card can be used only in the bottom PC Card slot.
- Zoomed video PC Cards are not supported in either slot.

Configuring a PC Card

CAUTION: If you install all of the software or any of the enablers provided by a PC Card manufacturer, you may not be able to use other PC Cards. If you are instructed by the documentation included with your PC Card to install device drivers:

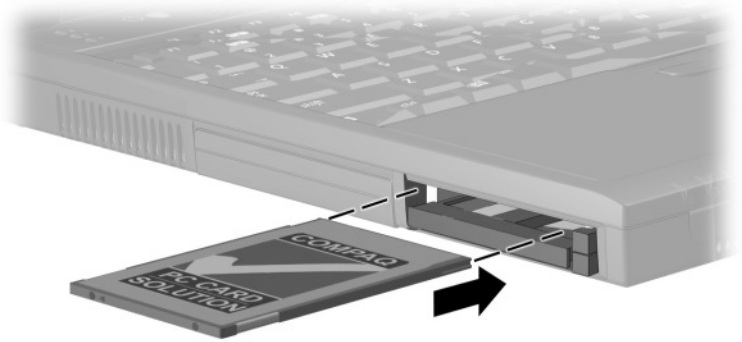
- Install only the device drivers for your operating system.
- Do not install other software, such as card services, socket services, or enablers, that may also be supplied by the PC Card manufacturer.

Inserting a PC Card

CAUTION: To prevent damage to the connectors:

- Use minimal pressure when inserting a PC Card into a PC Card slot.
- Do not move or transport the notebook while a PC Card is inserted.

1. Hold the PC Card label side up with the connector facing the notebook.
2. Gently push the card into the slot until the card is seated.

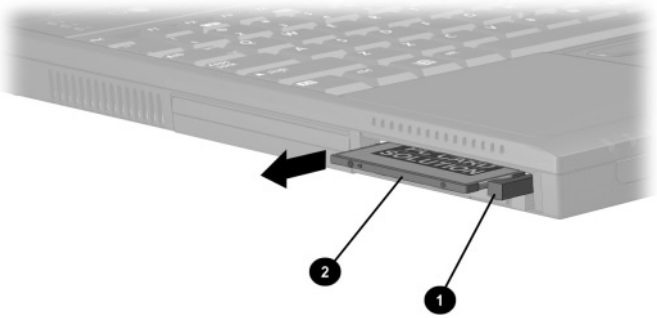


Inserting a PC Card into a PC Card slot

Removing a PC Card

CAUTION: To prevent loss of work or system lockup, stop the PC Card before removing it.

1. Stop the PC Card:
   - **Windows 2000 Professional**—Select the Unplug or Eject icon on the taskbar, then stop the card you plan to remove. When the card can be safely removed, a message displays.
   - **Windows XP**—Select the Safely Remove Hardware icon on the taskbar, then select the PC Card. (To display the Safely Remove Hardware icon, select Show Hidden Icons on the taskbar.)
2. To release the PC Card, press the PC Card eject button ❶ adjacent to the PC Card being removed.
3. Gently pull out the card ❷.



Removing a PC Card

An inserted PC Card uses power even when not in use. To conserve power, stop or remove a PC Card when you are not using it.

RAM or Memory PC Cards

You can increase RAM (random access memory) with optional PC Cards or memory expansion boards.

The notebook has two memory expansion slots and two PC Card slots. The PC Card slots support two Type I or Type II PC Cards or one Type III PC Card.

Viewing Memory and Hibernation File Information

When RAM increases, the hard drive space reserved for the hibernation file also increases. If you experience problems with Hibernation after increasing RAM, verify that your hard drive has enough free space for the larger hibernation file:

- To display the amount of RAM in the system:
  - **Windows 2000 Professional**—Select Start > Settings > Control Panel > System > General tab.
  - **Windows XP**—Select Start > Control Panel > Performance and Maintenance icon > System > General tab.
- To view the amount of free space on your hard drive:

  Select My Computer. Right-click your hard drive, then select Properties.
- To view the amount of space required by the hibernation file:
  - **Windows 2000 Professional**—Select Start > Settings > Control Panel > Power Options icon > Hibernate tab.
  - **Windows XP**—Select Start > Control Panel > Performance and Maintenance icon > Power Options icon > Hibernate tab.

Removing or Inserting a Memory Expansion Board

WARNING: The memory and mini PCI compartments are the only user-accessible internal compartments on the notebook. All other areas that require a tool to access should be opened only by a Compaq authorized service provider.

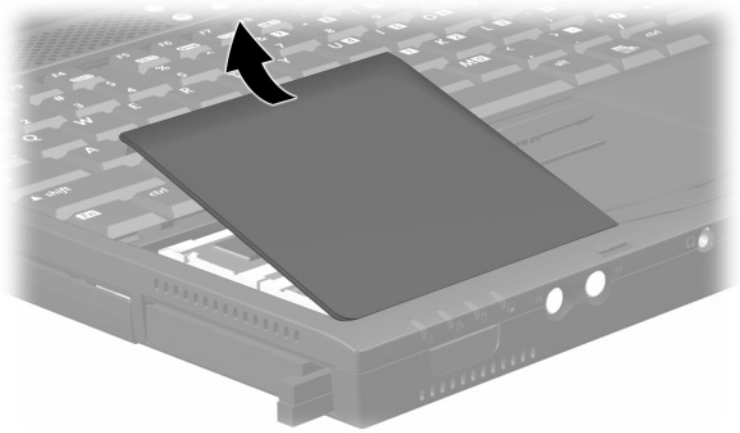
WARNING: Failure to unplug the power cord and remove all battery packs before installing a memory expansion board can damage the equipment and expose you to the risk of electrical shock.

CAUTION: Electrostatic discharge (ESD) can damage electronic components. Before beginning any procedure, ensure that you are discharged of static electricity by touching a grounded metal object. For more information, refer on this CD to *Regulatory and Safety Notices.*

1. Shut down the notebook. (If you are not sure whether the notebook is off or in Hibernation, turn the notebook on, then shut it down.)
2. Disconnect all external devices connected to the notebook.
3. Disconnect the power cord.

4. Remove any battery packs in the notebook.
5. Pop up the memory expansion compartment cover.

CAUTION: The memory expansion compartment cover does not have screws and can be opened with a fingernail or small flat tool. If a tool is used, however, be careful not to scratch the notebook surface.



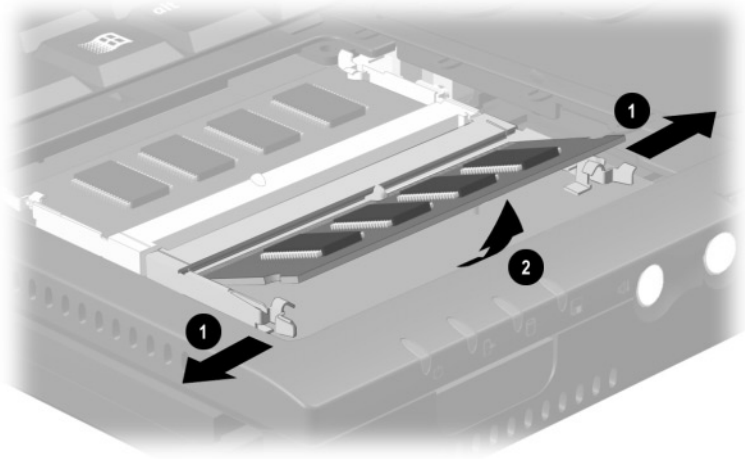
Opening the memory expansion compartment cover

6. Remove or insert a memory expansion board.

   To remove a memory expansion board:

   a. Pull away the retention clips on each side of the board ❶. The board tilts upward.

   b. Lift the edge of the memory expansion board, then gently pull it out ❷ of the memory expansion slot.



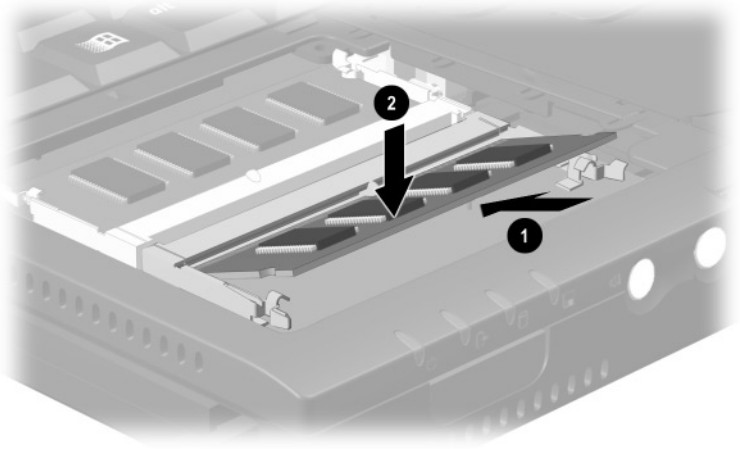
Removing a memory expansion board

To protect a memory expansion board after it has been removed, place it in an electrostatic-safe container.

To insert a memory expansion board:

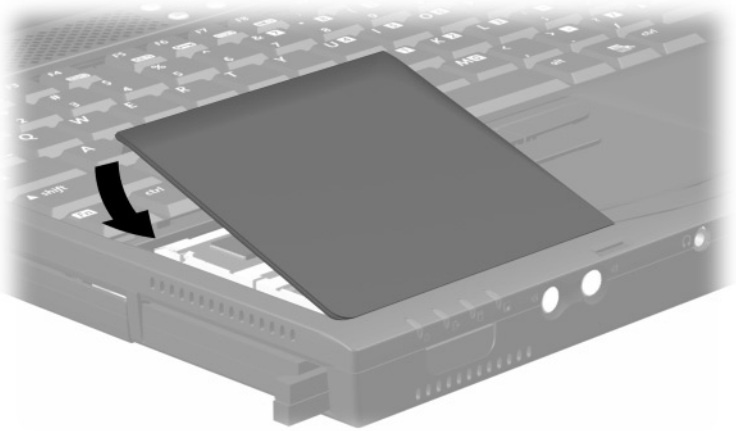
a. Align the keyed (notched) edge of the board with the keyed area in an available expansion slot ❶.

b. Press the board into the slot from a 45-degree angle until it is seated, then push the board downward ❷ until the retention clips snap into place.



Inserting a memory expansion board

7. Close the memory expansion compartment cover.



Closing the memory expansion compartment cover

8. Replace battery packs.
9. Reconnect AC power and external devices.
10. Restart the notebook.

10

Specifications

This notebook has been tested and found to comply with limits for a Class B digital device. For additional governmental agency information refer on this CD to *Regulatory and Safety Notices.*

Notebook Dimensions

Dimension	U.S.	Metric
Height	1.2 in	3.1 cm
Width	12.0 in	30.76 cm
Depth	9.8 in	25.0 cm

Operating Environment

Factor	U.S.	Metric
Temperature		
Operating	50° to 95° F	10° to 35° C
Nonoperating	14° to 140° F	–10° to 60° C
Relative humidity (noncondensing)		
Operating	10 to 90%	10 to 90%
Nonoperating	5 to 95%	5 to 95%
Maximum altitude (unpressurized)		
Operating	10,000 ft	3,048 m
Nonoperating	30,000 ft	9,144 m

Rated Input Power

Input Power	Rating
Operating voltage	100–120/220–240 VAC RMS
Operating current	1.6/0.8 A RMS
Operating frequency range	50–60 Hz AC
When powered by a DC source	18.5V MAX

✎ This product is designed for IT power systems in Norway with phase-to-phase voltage not exceeding 240 Vms.

Modem Specifications

Factor	Specification	
Temperatures		
Operating	32° to 167° F (0° to 75° C)	
Storage	-40° to 167° F (-40° to 75° C)	
Relative Humidity (noncondensing)		
Operating	10 to 90%	
Storage	5 to 95% at 102° F (5 to 95% at 39° C)	
Interfaces	Communications connector	Standard RJ-11 connector
	Telephone, central office network	Internal DAA
Power Requirements	+3.3 volts ±5%, +5 volts ±5%	

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